Players Guide To Electronic Wargames

electronic GAMES

Videogames · Computer Games · Stand-Alone Games · Arcades

Move Over Guys,
Here Come the Gals
Women Join the Arcade Revolution

Strategy Session:
Auto Racing
Skiing
Baseball
Tempest

Preview--
Videogames
1982

Stalking the
Lefthanded
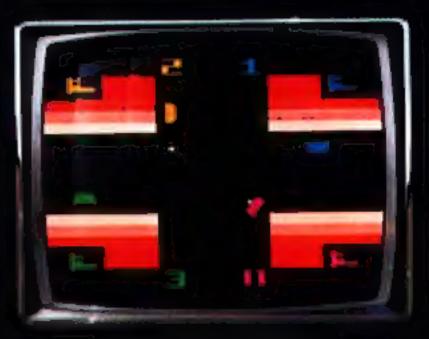Joystick

ALL OTHERS

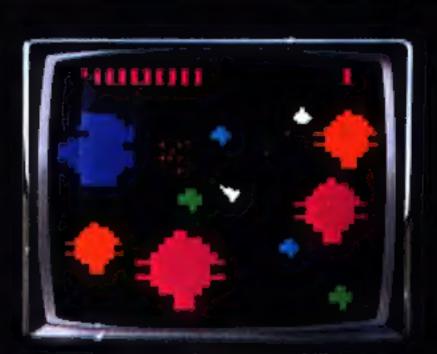ATARI SPACE INVADERS™

ALL OTHERS

ATARI MISSILE COMMAND™

ALL OTHERS

ATARI WARLORDS™

ALL OTHERS

ATARI ASTEROIDS™

ALL OTHERS

ATARI SPACE INVADERS*

ALL OTHERS

ATARI MISSILE COMMAND™

ALL OTHERS

ATARI WARLORDS™

ALL OTHERS

ATARI ASTEROIDS™

ATARI®
Video Computer System™

THERE'S NO COMPARING IT WITH ANY OTHER VIDEO GAME.

Only ATARI makes the games the world wants most. Games that are innovative. Intense. Incredibly involving. And totally original.

In 1980 ATARI invaded the minds of millions with Space Invaders.* It went on to become the single most popular video game in the world and thereby launched the space age game category.

Today ATARI Missile Command™ and Asteroids™ are the fastest selling home video games in the country. And judging by its current success in the arcades, ATARI Pac Man** is slated for the same this year.

ATARI
A Warner Communications Company

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NIGHT DRIVER
SLOT RACERS*
ASTEROIDS*
BACKGAMMON
HUMAN CANNONBALL
WARLORDS*
CANYON BOMBER
BASKETBALL
INDY 500
HOME RUN*
STREET RACER
ADVENTURE
MISSILE COMMAND
BREAKOUT
VIDEO OLYMPICS
CHAMPIONSHIP SOCCER*
CONCENTRATION
CODEBREAKER*
GOLF
CASINO
OTHELLO
FOOTBALL
SKY DIVER*
3-D TIC-TAC-TOE
HANGMAN
BRAIN GAMES
VIDEO PINBALL*
BOWLING
SPACE INVADERS*
VIDEO CHESS*
CIRCUS ATARI
DODGE 'EM*
MAZE CRAZE*
BASIC PROGRAMMING
VIDEO CHECKERS*
AIR-SEA BATTLE
COMBAT

*Indicates trademark of the Taito America Corp.
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electronic GAMES

SWITCH ON

Who are you?

Pleasing the readers is the editor's main job. That sounds straight-forward enough, but it isn't always easy to do. The EG staff had to do a lot of seat-of-the-pants flying when putting together the first couple of issues.

The reason: Very little is known about who, exactly, participates in America's fastest-growing hobby.

The typical arcader is a 25-year-old male. Although the number of female players is rising rapidly—see Joyce Worley's "Women Join the Arcade Revolution" in this issue—men still account for 96% of the total. The wide age-spread testifies to the universal appeal of electronic gaming. About one-fourth of you are under 16, an equal percentage fall into the 16-25 bracket and the remaining 51% are over 26.

Arcaders earn more and have more education than the general population. Roughly 48% come from families with average annual incomes of $20,000-$39,000, and an additional 10% live in households that earn over $40,000 a year. Slightly less than than half of you have some schooling beyond the 12th grade, while nearly one in four is current-

ly studying for that high school diploma.

Most EG readers own a videogame system. Atari is the favorite, found in 55% of readers' homes. Owners of the Odyssey² and Intellivision each represent about 18% of the survey sample.

Futurists often speak about the golden age of the personal computer being just around the corner. It's a lot closer than that for many arcaders. Nearly one-quarter already own a microcomputer, and another 44% expect to purchase one within the next 12 months. Atari's 400/800 and the Apple II Plus are currently the most popular.

Like most hobbyists, electronic gamers spend a fair amount of time each week on their favorite pastime. About five hours is average, though a sizable percentage of survey respondents report spending over 10 hours per week wrestling with electronic games.

Is arcading an expensive hobby? The typical player spends about $5 a week. Approximately 28%, however, shell out $15 to $20 a week.

Future installments of the Reader Poll should shed additional illumination on the thoughts, attitudes and opinions of electronic gamers.

Who am I?

"Where's Frank Laney?" many readers must've asked themselves after glancing at either the masthead on the contents page or the byline of this editorial. The inimitable co-founder of ELECTRONIC GAMES is alive and well.

In fact, he's me! Contractual obligations forced me to adopt the pseudonym of "Frank Laney Jr." when Bill Kunkel and I began the "Arcade Alley" column in *Video* Magazine. The same restraints have kept me behind the mask ever since.

Now things have changed, and I'm free to write and edit material about electronic games under my real name. And, yes, it's a great feeling.   ☺

—Arnie Katz

ELECTRONIC GAMES HOTLINE

...NEW GAMES-ND...FLASH..51...GREAT...

Apollo Offers Recall

A few arcaders have reported a technical problem with **Skeet Shoot** the first cartridge for Atari VCS produced by a new company, Games By Apollo. According to Apollo's president Pat Roper, some copies of the 2K target program roll on some makes of TV sets.

The problem is that the out-of-house designer who created the game set up with too many lines on the screen. Although none of the cartridges showed any problems when originally tested on the company's main television monitor, the trouble surfaced after distribution of the title was already underway.

Roper stressed that not all copies of *Skeet Shoot* contain this malfunction, and that adjusting the vertical hold knob will cure the problem in many cases. However, Games by Apollo is anxious to rectify the situation and establish goodwill with the electronic gaming public. Therefore, anyone who purchased a malfunctioning copy of *Skeet Shoot* can swap it for one that will work perfectly at absolutely no charge.

Just send the defective cartridge to: Games By Apollo, 1300 E. Arapaho Road, Richardson, Tex. 75081. The company will mail a replacement cartridge, postage paid, to all those who have had a balky version.

Activision Flies High

The world's first software-only videogame company, Activision, continues its expansion, with the addition of a new factory and the hiring of two new designers. Activision has also demonstrated an ability to produce media public relations events as exciting and colorful as its games. At a recent electronics trade show in Las Vegas, the company rented an actual crop-duster to promote one of its latest releases, **Barnstorming**. In addition to the pilot, *Barnstorming*-creator Steve

Odyssey Outlook

Aside from premiering a pair of new games, **Freedom Fighter** (a UFO-type science fiction shoot out) and **The Great Wall St. Fortune Hunt** (the third in the Master Strategy series), Odyssey has previewed an extremely impressive voice-synthesis unit. The speech system would fit right over the existing cartridge slot and is expected to retail for under $100.

★ O² owners will be pleased to see that there is now a club magazine, *Odyssey Adventure*, available c/o P₄O. Box 117, Warren, MI, 48090.

ELECTRONIC GAMES HOTLINE

Computer Notes

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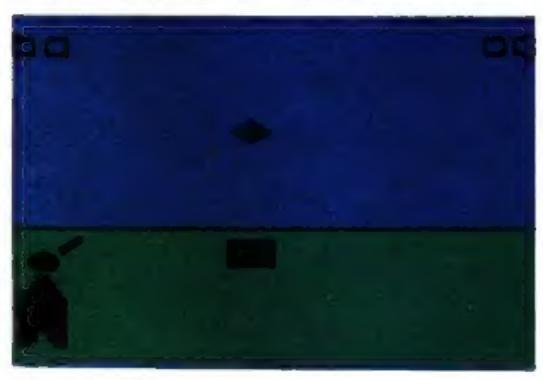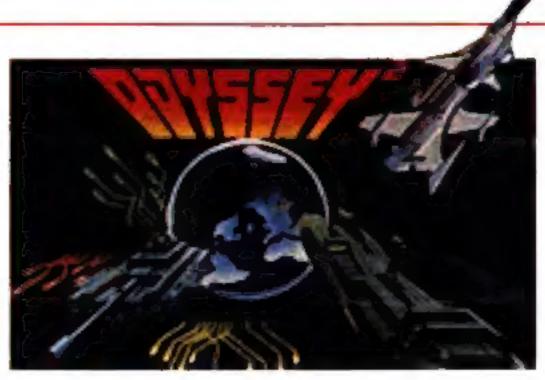Aside from premiering a pair of new games, **Freedom Fighter** (a UFO-type science fiction shoot-out) and **The Great Wall St. Fortune Hunt** (the third in the Master Strategy series), Odyssey has previewed an extremely impressive voice-synthesis unit. The speech system would fit right over the existing cartridge slot and is expected to retail for under $100.

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Videogum?

What next, eh, gamers? The influence electronic gaming exerts over the world in which we live is absolutely mind boggling. We've seen t-shirts, caps, towels and buttons all proclaiming affection for one or another popular videogame, and now we have, if you please, Asteroids Bubble Gum.

Produced by Swell Confections, Ltd. in Canada and Philadelphia Chewing Gum Corp. in the U.S., Asteroids gum comes in a colorful, spacey blue box. Within can be found chunks of rock-like chewing gum resembling one of our favorite videogame images. Just the thing after a frustrating session of blasting space rocks—after all, if you can't blow 'em up, you might as well just blow 'em!

Pac-Man Fever is Catching

You've played the videogame, now bop along with the song! That's evidently the idea behind "Pac-Man Fever". The rockabilly-style pop song has rocketed up the "top 100" chart to become one of the biggest novelty hit singles in several years.

Originally recorded for a miniscule southern label, "Pac-Man Fever" took Georgia by storm and won a wider distribution deal from Columbia Records. Columbia is so pleased with the song that it is prepannig to release a whole album by tha same artists, Buckner & Garcia, in the near future. Although the pair is still in the studio, advance word is that the entire disk will feature rockers with an arcade beat.

"Pac-Man Fever" was the brainchild of a Georgian named Arnie Geller. His seven-year-old daughter, a *Pac-Man* lover, got him interested in the coin-op sensation. "I wanted some way to get a few of those quarters back," Geller told *Electronic Games* recently. He took 'his idea for a gobble game song to a couple of singer/songwriters, and the rest is history. "Being Pac-Man fans themselves, they absolutely loved the idea," Geller recalls. "Two days later they came back to me with a song."

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Electronic Games' Picked Hits

Most Popular Videogames

Position	Name of Game	System	Manufacturer
	Asteriods	Atari VCS	Atari
2	Missile Command	Atari VCS	Atari
3	Adventure	Atari VCS	Atari
4	Space Invaders	Atari VCS	Atari
5	Baseball	Intellivision	Mattel
6	Space Battle	Intellivision	Mattel
7	Football	Intellivision	Mattel
8	UFO	Odyssey²	Odyssey
9	Kaboom!	Atari VCS	Activision
10	Tennis	Atari VCS	Activision

Most Popular Computer Games

Position	Name of Game	System(s)	Manufacturer
1	Star Raiders	Atari	Atari
2	Space Invaders	Atari	Atari
3	Missile Command	Atari	Atari
4	Adventureland	Atari/Apple/ TRS-80	Scott Adams
5	Jawbreaker	Atari	On-Line

Most Popular Coin-Op Videogames

Position	Name of Game	Manufacturer
1	Pac-Man	Namco/Midway
2	Asteroids	Atari
3	Defender	Williams
4	Centipede	Atari
5	Space Invaders	Taito/Midway
6	Battlezone	Atari
7	Missile Command	Atari
8	Gorf	Midway
9	Venture	Exidy
10	Galaxian	Namco/Midway

Readers Choose Top Games

Since mere *quantity* of play doesn't necessarily equal actual popularity, **Electronic Games** bases its standings on the votes of its readers. These lists of most popular games are based on the more than 600 Reader Polls returned on the first issue. We will update the "picked hits" lists in every future issue of **Electronic Games**.

So send in your votes!

Mattel Stages Smashing Tournament

Beginning on March 15, 1982, don't be surprised to hear the sounds of explosions and digit counters reverberating throughout the land. The hits will indeed be alive with the

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Astro Update

★ Astrovision has taken firm control of the old Bally Professional Arcade system, rechristened it and begun introducing a swarm of new game titles. But perhaps the most interesting news from the Columbus, Ohio-based firm is the appearance of the long-awaited ZGrass keyboard scheduled for release later this year.

★ On hand to demonstrate their new **Galactic Invasion** at a recent trade fair, **Galaxian** champ Mike Kohler, 14, from Naperville, Ill., wound up setting a new record on the ninth level, one of the most challenging variations for any game. Mike was even briefly joined by former NBA star Rick Barry for a little head-to-head action.

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Beginning on March 15, 1982, don't be surprised to hear the sounds of explosions and digit counters reverberating throughout the land. The hills will indeed be alive with the sound of astrosmashing as Mattel kicks off its **Astrosmash** Shootout.

Specially packaged Master Components, will have coupons for free **Astrosmash** cartridges along with entry blanks—which can also be obtained from dealers. Players can then practice at home and take photos of their high scores (defined as the highest point reached during the course of play as opposed to the final score).

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Are You Suffering VCS Distress?

By Henry B. Cohen

With the Atari service fee a fixed $36.50 plus shipping, the following step by step guide is offered to help solve the most common ailment of older VCS machines. The information was relayed to this writer by a service technician at Atari who must remain anonymous. Atari keeps all of its technical data confidential, and so a thorough guide to at-home repairs is not possible to prepare.

If, however, your VCS is exhibiting the following symptoms, this fix is probably for you.

Problem: After several seconds to several minutes of play all color is lost. Turning the machine off and on cures the trouble but only for a few more minutes. You may lose color, the remaining pattern is snowy or herringboned, the game is virtually impossible to play but sounds remain normal. The condition may come and go.

The solution lies in the fact that due to FCC regulations two capacitors are wired into the main printed circuit board. They apparently serve to limit stray television interference. If either or both of these capacitors fails you will see the conditions described above. Simply removing the capacitors will instantly establish if they are the cause of the problem. They are not necessary for the game to work properly, only to maintain FCC radiation regulations. If your troubles clear up immediately, the capacitors are causing your problems and replacement is necessary.

Before going into repair details, the following cautions are necessary. First never work on any piece of equipment without unplugging it from its AC power source. Second, if you are not skilled at soldering find a friend who is. This is not the time to learn a new skill or practice your technique. Last, there may be some voltage stored in the large (illustrated) power capacitor. While it probably won't harm you, keeping your fingers away from the eliminating leads and circuitry is a good idea. If you inadvertently short out the capacitor, cause its leads to touch themselves, or make contact with the common ground wiring (printed onto the circuit board) you will discharge the capacitor. This will usually result in a loud crackling noise. It may sound frightening, but do not be alarmed. It is a normal condition when a capacitor is shorted out.

It is also good practice to keep notes as to what things looked like before you began your repair. Then you will know what everything should look like after the repair is completed. The illustrations are of a machine approximately four to five years old. Yours may, due to revisions made over time, look somewhat different. It really doesn't matter as long as you take good notes or have some familiarity with electronic circuits.

The parts needed for this repair are two .22 microfarad (.22 uf) capacitors rated at 100 volts. Higher voltage ratings are preferred, but not necessary. These parts may be found at any radio parts store or Radio Shack. The part number at Radio Shack is 272 1058, the cost 69¢ a piece. Do not use electrolytic capacitors for this repair.

Step 1: Remove any game cartridge and all controller and power wires from console.

Step 2: Place unit face down and remove six phillips head screws as illustrated. Do not use any screwdriver that fits improperly or use unreasonable force. Do not loosen or remove the two silver screws located near the center of the unit.

Step 3: Turn unit face up. Ease the cover piece from the base using moderate force by lifting first the rear edge of the cover and then the front. Remove the six black rubber washers.

TEST LAB

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Step 3: Turn unit face up. Ease the cover piece from the base using moderate force by lifting first the rear edge of the cover and then the front. Remove the six black rubber washers

that rest on each switch shaft. Place the washers and the six mounting screws to the side.

Step 4: Remove the phillips head screw on the lower right side of circuit board and lay it aside. Unplug the RCA connector on lower right side of circuit board. Gently loosen and disconnect the multi-pin ribbon connector from the console.

Step 5: Remove the circuit board. The console may be placed aside for now.

Note: Replacement requires soldering skills. You must use a low wattage solder gun or pencil (under 30 watts) and rosin core solder. If you have little or no experience soldering find someone who does. A friend, the

local TV or radio service shop can do the job in a minute or two while you wait. The charge should be nominal.

Step 6: Locate the two .22 uf capacitors on the left side of the circuit board as shown. Using a diagonal cutter (wire cutter)—not a scissors—snip the leads going to the capacitors. The unit may now be re-assembled and checked, or you may proceed to replace the capacitors without checking further.

Step 7: Reassemble the unit reversing the instructions given. Note that the two longest screws are used to join the front edge of the cover piece to the base of the console. The shortest of all seven screws is used to attach the left side of the printed circuit board to the base.

Electronic Games knows that this repair will work as published. This writer had the problem with his machine and repaired it as stated. We cannot be responsible if the repair does not work for you, or if you damage the machine through carelessness etc. Do not attempt any repair on a machine under warranty as this will void the warranty. ★

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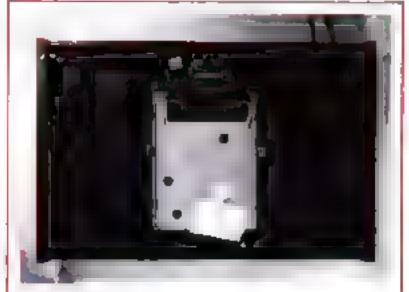
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Ah, I see the waiting room's full—and the old Game Doctor is most definitely in—so let's get on with the business of awarding that ELECTRONIC GAMES t-shirt for the best question this time out. This issue's winner is John Fazackerley of Lakeville, N.Y. Wear it in good health, John!

Q Every video game I have come in contact with uses block numbers and letters. How does the Odyssey2 make their alphanumeric characters with curves in them? (from John Fazackerley, Lakeville, N.Y.)

A Good Question! The reason that O² characters are so smooth and non-block-like is that, unlike other videogame systems which must construct numbers and letters from tiny squares, the Odyssey's characters are "pre-packaged." That is, its microprocessor actually contains all ten numbers and 26 alphabet characters in its memory, enabling the system to instantly produce letters, words and numbers without having to build them from blocks.

To find out more about this interesting feature, check out the O² BASIC cartridge.

Q While playing Intellivision's USAC Auto Racing my friends and I have found "sections" of track that begin and end. (For example, on the last hairpin curve on track 1, just before you complete alpha,

leave the track and head in toward the center of the loop. Surprise! A perfect drag strip.) These chunks of track are all over the place. Do they have a purpose or do they just pop up when someone takes a cross country jaunt? (from C. Herr of Westmont, IL)

A Actually, C.j., rather than designing various tracks for Auto Race, Mattel's game sorcerors created a single, enormous racing layout. Imagine a course so large you would need perhaps fifty monitors to view it in its entirety. The various courses are simply portions of this master layout, sometimes the upper right hand corner, other times the lower left hand section and so on. Just for fun—and the amusement of creative gamers such as yourself—the designers threw in stretches of straightaway that are indeed excellent for drag racing.

So go, hot-rodders, go!
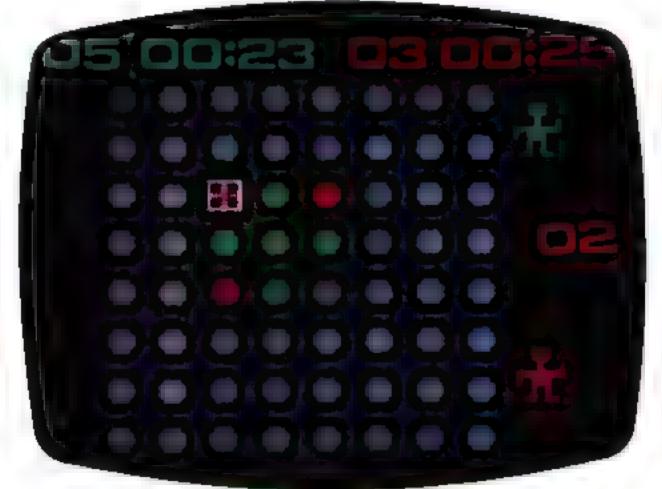
Q Would it be possible to use the graphics generated by the Atari 400/800 Video Easel cartridge in conjunction with the video cassette recorder (VCR)? In other words, could I create a pattern and then edit it onto videotape? To say the least, this would be very helpful in "professionalizing" the look of home video productions. If it is possible, how difficult would the set-up be? (From Paul D. Farault, Tauton, Mass.)

A You can do it, Paul, but unfortunately, it isn't going to be a snap. You see, the computer-generated graphics image
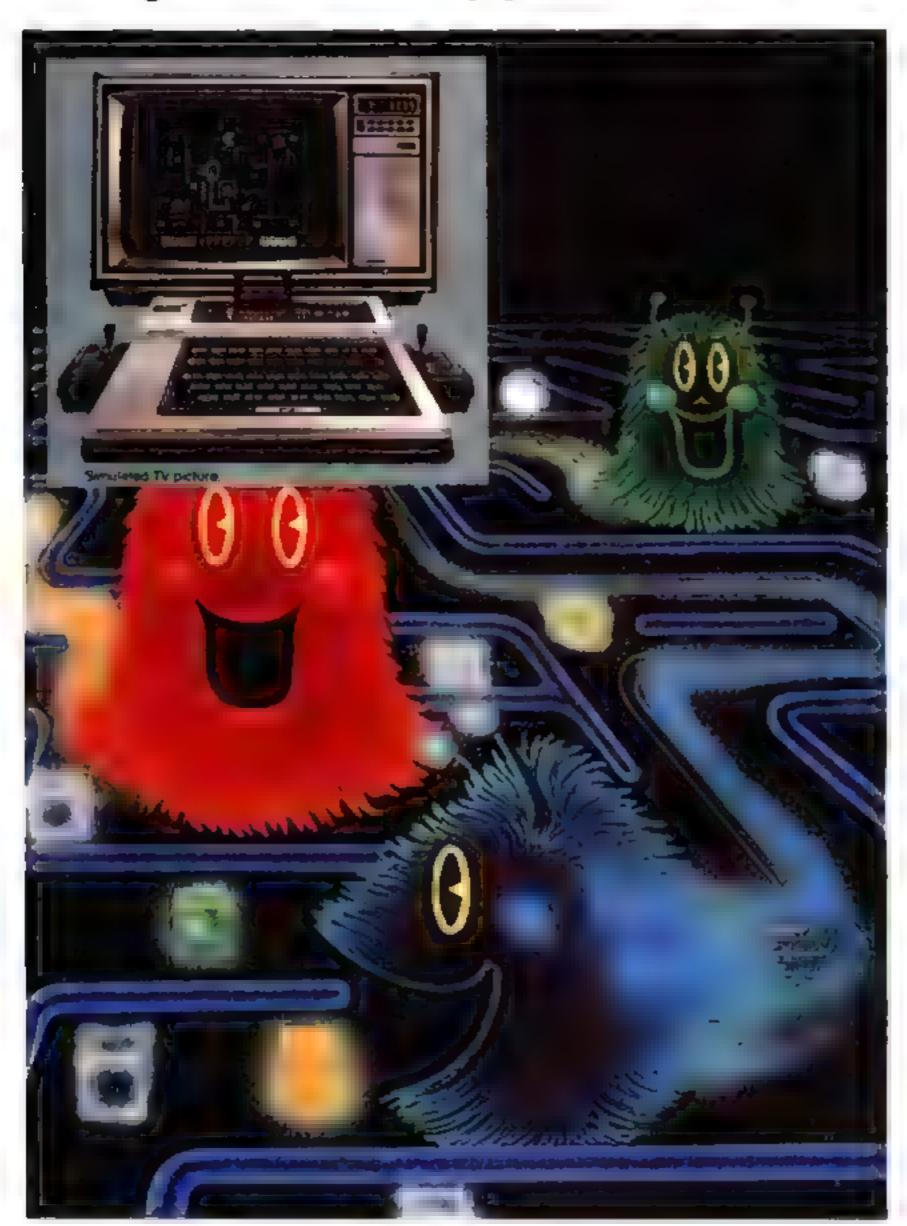
ASTEROIDS

ALPHA-NUMERICS ON O²

ON YOUR MARK, GET SET, MUNCH.

With new K.C. Munchkin from Odyssey², you don't destroy your enemies, you simply eat them.

How many Munchies can your Munchkin munch before your Munchkin's all munched out? Play K C Munchkin and see!

It's fun. It's exciting. It's challenging Your whole family will love it!

A Munchkin, three Munchers and 12 Munchies float in a maze with a rotating center The more Munchies your Munchkin munches, the more points you get. The more points, the faster the computer makes the game go And the more skill you need to score and to keep your Munchkin from getting munched by one of the Munchers!

The better you play, the greater the challenge!

Program your own mazes.

Use the Odyssey² keyboard. . there s virtually no limit to the number of mazes you can create. There are even invisible mazes for when you're ready to turn pro.

Choose from more than 40 arcade, sports, education and new Master Strategy™ games, from Odyssey² They're waiting for you now at your video games or Odyssey² dealer

Odyssey²...video game fun, computer keyboard challenge. All for the price of an ordinary video game.

Simulated TV picture.

The excitement of a game. The mind of a computer.

IS IT YOUR BEST BUY IN VIDEO GAMES?

DECIDE FOR YOURSELF

"If you're interested in an inexpensive video game, compare: Odyssey² has better hand controllers ... comes with an alphanumeric keyboard ..."
(GAMES MAGAZINE)

MAIN UNIT VALUE — With Odyssey², you get a basic game keyboard unit plus two hand controls (joysticks) with action buttons plus a starter cartridge with three different games There are no hidden costs for extra hand controls or a keyboard attachment. More cartridges — which add new games — are the only extras. And Odyssey² can be easily attached to any black-and-white or color TV without fear of damage to the screen

Next, compare the Odyssey² keyboard itself. It is a complete alphabet and number unit with 49 characters for sophisticated game playing. The keyboard is used to play some game cartridges and to program different game variations, time limits and skill levels

One popular competitive video game doesn't have a full alphabet and number key-board available for its comparably

priced system; another popular brand offers a keyboard, but only at a very high extra cost

Don't overlook the hand-control joysticks, either. Odyssey² joysticks are excellent in their smooth, easy operation.

They also have eight slotted control positions so you always know exactly in which position you'll be going when you push the joystick.

And, to emphasize again, Odyssey² comes complete with the hand controls and keyboard for playing all available cartridges. Some competitive games require you to purchase additional sets of controls to play some of their games!

GAME SELECTION — Odyssey² offers over 40 games with new ones regularly being introduced (see the back cover for full listing). This is about the same number of games as from one other game manufacturer and about twice the number as from another Also, only Odyssey² offers board/strategy games where you set up the strategy on the game board and play out the action on the screen.

Don't take just our word for Odyssey² value Read what experts, owners, educators and students say. And, most important, compare feature by feature, side by side, with other leading brands at your video games dealer's. You'll see why we say that Odyssey² has the excitement of a game, the mind of a computer — all for the price of an ordinary video game

STARTER CARTRIDGE WITH THREE GAMES

ACTION BUTTON

JOYSTICK

SPECIAL FUNCTION KEYS

FULLY COMPUTERIZED TYPEWRITER-LIKE KEYBOARD

CONTROLS FOR ALL GAMES

WHAT THE EXPERTS SAY ABOUT THE ODYSSEY² MAIN UNIT:

"BEST VALUE IN ITS PRICE CLASS" "The company has evidently labored long and hard to create a truly outstanding state-of-the-art home video arcade. In fact, this machine may well be the best value in its price class ..." (VIDEO)

"HAND CONTROLLERS ... BEST ON THE MARKET" "The hand controllers for the action games are very well designed,

too — perhaps the best on the market." (VIDEO REVIEW)

"Odyssey² game unit's main selling point, I believe, is its joystick which is probably the easiest to maneuver of all the control units for home video games. I cannot emphasize enough how important this difference is." (VIDEO ACTION)

"KEYBOARD ... REQUIRES ONLY A LIGHT TOUCH TO OPERATE" "The built-in alphanumeric keyboard is of a durable monoplane design that requires only a light touch to operate." (VIDEO REVIEW)

"The Odyssey² console which features a full monoplane keyboard, is very attractive — yet rugged enough to stand up under regular play." (VIDEO)

WHAT THE EXPERTS SAY ABOUT ODYSSEY² GAME CARTRIDGES:

"The SPEEDWAY/SPIN-OUT/CRYPTO-LOGIC game comes packed with the Odyssey² and is a good showcase for the machine's capabilities. The trio of contests provides a pleasing variety of action well calculated to whet the arcade addict's appetite for more." (VIDEO)

THE QUEST FOR THE RINGS, rated most innovative game in VIDEO Magazine's 3rd Annual Arcade Awards "Odyssey² designers have charted a bold new path for video games by blending the on-screen action with aspects of the traditional boardgame ... This brilliant synthesis enriches QUEST with more depth, detail and complexity than any previous cartridge for this — or any other — programmable videogame system." (VIDEO)

"QUEST FOR THE RINGS is a giant step ahead of other video games in richness and complexity." (ELECTRONIC GAMES)

UFO, rated best science fiction game in VIDEO Magazine's 3rd Annual Arcade Awards "Odyssey² designers have

always had a special affinity for science fiction themes, and this cartridge is definitely one of their greatest triumphs." (VIDEO)

"UFO is one of the best games in the entire Odyssey² library and seems destined to become something of a video game classic. This is a 'must buy' for every Odyssey² owner." (ELECTRONIC GAMES)

"WAR OF NERVES ... Absolutely first-class video and audio effects further distinguish this outstanding game. This is without a doubt one of the most entertaining arcade games yet produced ..." (VIDEO)

"BASEBALL is the closest thing to the national pastime ever offered to home video game enthusiasts." (VIDEO)

"FOOTBALL is a visually exciting and generally successful attempt to do something pretty challenging ... certainly an excellent game ..." (VIDEO)

"ALIEN INVADERS-PLUS! is the most difficult video game I have ever encountered --

bar none and that includes the larger and sometimes more sophisticated games one encounters in game rooms and saloons ... ALIEN INVADERS-PLUS gets this reviewer's unqualified nomination for the most captivating video game around." (VIDEO ACTION)

"OUT OF THIS WORLD is a colorful and entertaining lunar-lander game that should be perfect for novices who might find other Odyssey² space games too demanding. It's also an ideal way to introduce younger brothers and sisters to the joys of home arcading ... This cartridge has an extra bonus in the form of a second game, HELICOPTER RESCUE. It's a race against the clock to save people from a doomed skyscraper, enhanced by colorful graphics that will keep youngsters entertained for hours." (VIDEO)

"AN INCREDIBLE NUMBER AND VARIETY OF GAMES" "Among Odyssey²'s special features are to put it simply, an incredible number and variety of games!" (WHERE)

WHAT ODYSSEY² OWNERS SAY:

"(Odyssey²'s) capabilities are beyond its price range! I purchased the Odyssey² in November 1979 and have enjoyed its video game-fare along with the rest of the neighborhood. Since then, four other families have bought the Odyssey² system."

"Lately, Odyssey² has made so many

great cartridges to choose from. I just bought the newest one, THE QUEST FOR THE RINGS. I have never seen such a game with so much excitement. I think the keyboard overlay is a great idea. Thanks a lot for making my Odyssey² into something I never thought it would be!"

"I am an avid fan of your Odyssey² video

game. I feel that your games are top quality and the competition just doesn't stand up to your standards."

"We have recently purchased an Odyssey² video game and would like to say how pleased we are with it. Everyone is enjoying the challenge and fun it offers."

WHAT EDUCATORS AND STUDENTS SAY:

"These games have a great potential for youngsters learning mathematics, logic and spelling."

"Wonderful motivation! The kids will work

much longer and much harder to play on Odyssey² "

"The study habits (of one of my students) have been extremely poor since first grade and I have had little luck in motivating him to do math work ... until I

began using Odyssey² with him. I was astonished at the results."

Buzzword helps me spell words I never learned before."

OVER 40 GAMES AVAILABLE
VIDEO GAME FUN — COMPUTER KEYBOARD CHALLENGE

Favorite arcade, sports, educational and strategic games are available with Odyssey² Exciting new ones are on the way. Some cartridges offer two or more different games, plus a choice of skill levels, time limits and number of players. There's so much variety, you'll never get tired of playing Odyssey²

ARCADE

Cosmic Conflict 9411	Invaders from Hyperspace 9414	Thunderball 9415	War of Nerves 9417	Showdown in 2100 A.D. 9416	Alien Invaders-Plus 9428
Armored Encounter 9403	Subchase			Helicopter Rescue 9419	Out of this World
Pachinko 9425	Casino Slot Machine 9426	Speedway 9400	Spin-Out	Crypto-Logic	Take the Money and Run 9412
Blockout 9427	Breakdown	K.C. Munchkin 9435	Monkeyshines 9432	UFO 9430	

THE EXCITEMENT OF A GAME, THE MIND OF A COMPUTER

SPORTS

Baseball 9408	Bowling 9404	Basketball	Hockey	Soccer 9420	Football 9402
Computer Golf 9410	Alpine Skiing 9418	Electronic Table Soccer 9423	Volleyball 9422	Pocket Billiards 9424	

EDUCATION

I've Got Your Number 9413	Matchmaker	Logix 9407	Buzzword
Math-A-Magic 9405	Echo	Computer Intro 9406	

STRATEGIC GAMES

The Quest for the Rings 9429	Conquest of the World 9431
Dynasty 9421	Las Vegas Blackjack 9401

Litho in USA

Q&A

would first have to be synchronized with the video signal. According to Atari's Paul Nelson, this could be achieved through the use of an electronic "black box". That's a pretty costly piece of equipment. "It would probably be more expensive than the computer itself," Nelson warned.

There's one possible way around this, however. It is possible to use a video camera to photograph the image directly off the monitor screen. "You'd have to work out the right frame rate," Nelson advises, "but overall it would be the easiest way to do it."

Thank you, Mr. Nelson. I want it clearly understood, however, that the Game Doctor *never* splits fees.

Q. *Is it possible for a videogame cartridge from one company to be used with the console of another company?* (from Chris Shreves of Gibsonville, N.C.)
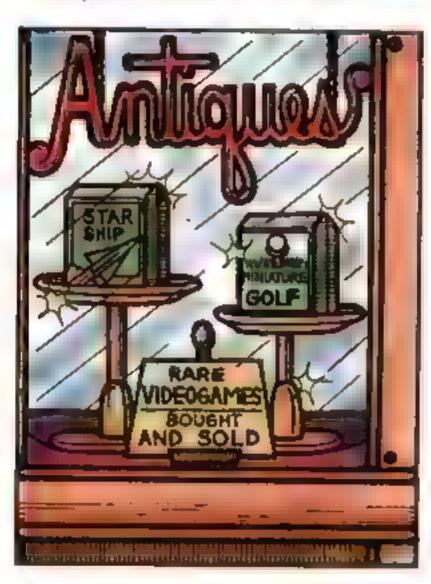
A: This is the single most often-asked question we receive here at the old Doctor's office and, sad to say, the answer is always the same. No. Different systems work in entirely different ways with non-compatible microprocessors, memory, etc. Perhaps somewhere along the line we may see some form of adaptor or interface developed that would allow such interchangeability, but that's a long way off.

Q. *Why are some programs for the Atari 400/800 computers loaded by a cartridge (i.e., Star Raiders, Missile Command) while others load via the program recorder (Space Invaders, Blackjack)?* (from Don Sojka of Linden, N.J.)

A: Actually, the Atari Computers use three input modes, the third being the 810 Disk Drive, which is far speedier than the recorder in terms of load time. As to

why some programs are on tape and others are on ROM, the old Doctor would have to guess that it was a matter of available time. ROM cartridges—the most familiar type of game format—can take quite a while to produce, requiring factory and production capabilities that did not exist when the 400/800 computer. Because Atari felt certain that computer users would want a version of *Space Invaders* included among the initial software releases, and because putting it on ROM cart would have taken too long, it opted to go with cassette.

By the way, since then, Atari has reissued *Space Invaders* on ROM cart.

Q. *As an owner of an Atari VCS, I am curious about the number of cartridges offered by Atari. They now boast of 43 different cartridges, but at least three are not on the list: Star Ship, Space War and Miniature Golf. Are these no longer available or are they just not mentioned in this catalog?* (from Greg Hayes of Arlington, Texas)

A: The games you mentioned have alas, been pruned from the VCS line along with *Surround* and *Slot Machine.* Although these titles, especially *Miniature*

Golf and *Surround,* were not without virtues they didn't sell well enough to merit continued inclusion in the Atari library—especially with so many new games turning up every month. So rather than choke its catalog with slow moving titles, Atari decided to regularly evaluate each of its cartridges to insure that it is still of interest to the gaming public.

The result of this videogame gardening is the first group of "collector's item" videogames. These games may soon become sought-after items of electronic gaming antiquity. So remember, while some stores may have copies of these titles in stock, they won't have them for long.

Q. *I would very much appreciate it if you could give me some information on the Mattel Intellivision, its games and operations. I am especially interested in finding out whether it, and its game cartridges, are available for the so-called PAL system televisions, which we use in Europe.*

Also, have any other systems been adapted for the PAL system (from Bert de Vries of Amsterdam, Holland)

A: First off, Bert, let's explain to our North American readers exactly what the "PAL" system is. The television image we see on our TV monitors are composed of "lines of resolution." The greater the number of lines, the greater the clarity of the image. European televisions are designed to receive transmission broadcasts comprised of a greater number of lines of resolution than American sets. It is therefore neccessary for special modifications to be made in any standard U.S. videogame system before it can be played on a European boob tube.

At press time, both the Odyssey² (known in the Continent as the Philips 2000) and Atari VCS are being manufactured for PAL systems and are being sold extensively throughout Europe. It seems only a matter of time, however—perhaps as you read this—before Intellivision joins the programmable parade "over there".

That about kicks it in the head for this installment of Q&A. Send all those cards and letters to The Game Doctor, c/o Electronic Games, 235 Park Ave. South, N.Y., N.Y. 10003.

Readers Replay

A Left-handed Compliment

I am a left-hander trapped in a right-handed world. Even the controls for programmable videogames are geared to right-handers.

I have learned to adapt to the joysticks, but was wondering if any of the videogame companies, especially Atari, is planning to come out with left-handed joysticks?

I love your magazine.

Dave Hoy
Marietta, Oh

Ed: No word on any commercially produced joysticks for southpaws, but that doesn't have to stop you. See "Stalking the Left-handed Joystick" in this very issue for simple instructions to convert standard controllers to your needs.

* * *

Wanted: More New Game Info

I have never before written a letter to any magazine, but your fantastic publication has changed that. I used to buy any video magazine on the stands that had even a tiny article on videogames.

In the future, I would like to see more previews of programmable videogames, including descriptions and, if possible, screen pictures. How about a little information about a new Activision-type company called Imagic? And if you could, I would also like to see a list of the top 10 (or 20) coin-op games.

Finally, for my most precious request: "Go monthly!"

Jerry Quinn Jr.
Veradale, Wash.

Ed: No question about it, letting you know about upcoming games is one of the most important functions of **Electronic Games**. Unfortunately, the competitive nature of the business sometimes prompts manufacturers to be cagier about their plans than arcaders—and magazine editors—would like.

For news about your final request, check out the next issue of **EG**, on sale May 15.

* * *

An Overlooked System?

While I greatly enjoy Electronic Games, I do have one small complaint to bring to your attention.

Your space devoted to coverage of the Bally Professional Arcade seemed very sparse compared to that given to

the other programmable videogames. In my opinion, the Arcade is equal to or better than any of the other systems you covered. Perhaps you will see fit to cover the Bally Professional Arcade in much greater depth in a future issue.

Don Reed
White Sulphur Springs,
W. Va.

Ed: The quality of the Astro Professional Arcade (note new name) had nothing to do with lack of coverage. At the time we assembled the first two issues, we were still unsure about the level of commitment Astrovision intended to make in reviving this system. Time has removed some of our doubts and, with review materials from Astrovision now reaching our offices regularly, look for greatly expanded coverage of this fine system beginning this issue.

* * *

Aids for Amateur Designers?

In comparing the various models of videogames and home computers, I find the Atari VCS more ideally suited for my needs than a home computer. However, I would much prefer having the ability of designing and programming my own games.

Checking into this possibility, I find that, in order to achieve the realism of an arcade game, one must spend far too much money on hardware and must master a difficult-to-understand computer language to achieve this end. Even with a machine that had all the capabilities, I know of no company that offers anything specific.

My question to you is Are there any home computer companies making any strides toward designing a home computer with the specific intention of its being used to design and play your own video-games? I—and I am sure many others as well would applaud such an accomplishment.

Lou Lambo
New Brighton Pa

Ed: Just as there's more to taking good pictures than buying an expensive camera, there's a lot more involved in creating a new electronic game than just having a computer with a super graphics system and lots of memory. Broderbund's new **Arcade Machine**, which we have not previewed as of this writing, may offer novices a chance to get their feet wet in game design.

The real breakthrough will come when someone produces a software package that a non-programmer can operate with simple English commands It is probably at least a couple of years in the future, alas.

★ ★ ★

A Mainframe Gamer Comments

I agree with your conclusion that the Odyssey[2] is not very well covered for solitaire play I would like to be able to play football or baseball against the computer. It's hard to get competition for some types of games that take a lot of practice to master

As a Bell System employee, and a UNIX user, I have come to really enjoy text adventure type games After many many hours of effort I was able to complete both Dungeon and Adventure two games available on UNIX It was with both satisfaction and remorse that I finished them, since I hated to see them end

Kit Kimes
Montgomery Ill

Ed Odyssey is certainly trying to plug the solitaire gap with some of its recent releases. I don't think you'll be seeing a sophisticated baseball or football cartridge from any manufacturer that will play solo—at least for some time to come.

As you probably know, the whole adventure game genre began with programs written for the big systems such as the one with which you work.

THE JOYSTICK JURY WANTS YOU!

If the tremendous response to **Electronic Games** proves anything it's that you are an unusually knowledgeable and opinionated bunch That's good It means you care about this hobby and really feel strongly about the things that affect it

Here's your chance to air your views on electronic arcading in front of this magazine's entire readership Joystick Jury", a column of reviews by readers, will begin publication in the next issue

All you've got to do to participate is follow a few simple rules.

Type (or clearly print) your comment on a separate sheet of paper that also includes your name and full address.
2. Keep comments brief and to the point no more than 100 words
3. Observe the rules of fairness and courtesy. "Joystick Jury" should be a forum for reasoned opinions, not an arena for name-calling.

Each issue we'll print the most interesting responses to create a symposium on the topic under examination by the jury The issue's best comment as judged by the editors of **Electronic Games**, will win a cash prize of $25. (All submissions become the property of EG, and none can be returned)

Here are the next two instalments of "Joystick Jury" Feel free to write about either one or both, but please, put each entry on a separate sheet of paper

Joystick Jury #2 (for Electronic Games #5): There are as many reasons for liking a particular electronic game as there are players What quality or element sound graphics, bright colors play mechanics theme or something else —do you consider most important in the creation of a great electronic game and why?

Deadline: April 15, 1982

Joystick Jury #3 (for Electronic Games #6): One of the biggest current trends in home arcading is the translation of games that have found success in the commercial amusement centers to cartridges for programmable videogame systems and home computers. Would you prefer to see more and more of such transplants, or is your primary interest in games created especially for the home market? What do you think about the quality of some of the home versions of famous coin-op hits? Is this the way you'd like to see the hobby go in the future?

Deadline: June 1, 1982

VIDEOGAME

DEMON ATTACK

TRICKSHOT

By the Editors of Electronic Games

Hold onto your joysticks, videogamers, because here comes the product flood! While there's always the danger of overworking superlatives when discussing the rapidly growing electronic games field, it is not an exaggeration to say that the current year is shaping up as the most exciting one so far.

Last year's videogame sales boom has lured several manufacturers into the business for the first time, and has prompted most of the existing suppliers to make some mighty ambitious plans. There's often quite a gap between prediction and production, but if things happen as planned there could be as many as 60 new cartridges for the Atari VCS alone!

Despite the on-going recession, there's little reason to think that the dramatic expansion of the videogame market won't continue strongly in 1982. Over four million American families will buy programmable videogame systems this year. By the end of the next holiday season, more than 16% of all households in this country will have game-players attached to their TV sets. Electronic Games estimates that avid arcaders will buy more than 50 million cartridges for use with the home systems.

1982

VIDEOGAME OUTLOOK...

DEMON ATTACK

TRICKSHOT

STAR VOYAGER

SPACE FORTRESS

By the Editors of Electronic Games

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These forecasts are actually rather conservative. If the economy improves and all the anticipated new products reach stores on schedule, it's entirely possible that actual volume will be far, far greater.

Coin-ops will still strongly influence home arcading this year. Companies are reluctant to put production money behind titles that haven't compiled a solid track record in the amusement centers. So if you played a game in an arcade last year, chances are good that you'll be able to buy a home version sometime in the next 12 months.

Science fiction is still the single hottest theme, but publishers are taking due notice of the popularity of non-SF coin machines like **Pac-Man** when formulating new product plans. Thus 1982's new cartridges will include games on a broad array of topics, ranging from money games like **The Great Wall Street Fortune Hunt** (Odyssey) to road-racing competitions such as **Grand Prix** (Activision).

A number of new entries will be games uniquely suited to home play. These would be either too complicated or take too long to be successful (and profitable) in the amusement centers. Atari, Mattel and Astrovision are all planning one or more quest games for their systems, and newcomer Imagic hopes to have an adventure cartridge compatable with the In tellivision by next fall.

1982 1982

OUTLOOK....

STAR VOYAGER

SPACE FORTRESS

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1982

ATARI PAC-MAN

STAR STRIKE

Some of the specifics are still a bit murky but there ought to be several complete new videogame systems available between now and next January. Here's a brief rundown:

★ Atari Super-Game. This will be a senior programmable system and is intended to offer arcade quality graphics and on screen movement speed. It will retail for approximately $350 and stress home versions of coin-op winners like *Pac-Man* and **Defender**.

★ Tryom Video Computer Game. This standard system, sneak previewed at a recent trade show, will have 26 cartridges by the end of this year. Though the graphics aren't quite up to the quality of, say, the Atari VCS, it will be priced significantly lower.

★ Coleco Videogame System. Though not available for inspection as we go to press, the famous toy-maker plans to show it to retailers and have it in the stores by Christmas.

Meanwhile, Bally is apparently having second thoughts about its hasty sell off of its home game. The coin-op giant is rumored to be readying a new programmable videogame machine of its own.
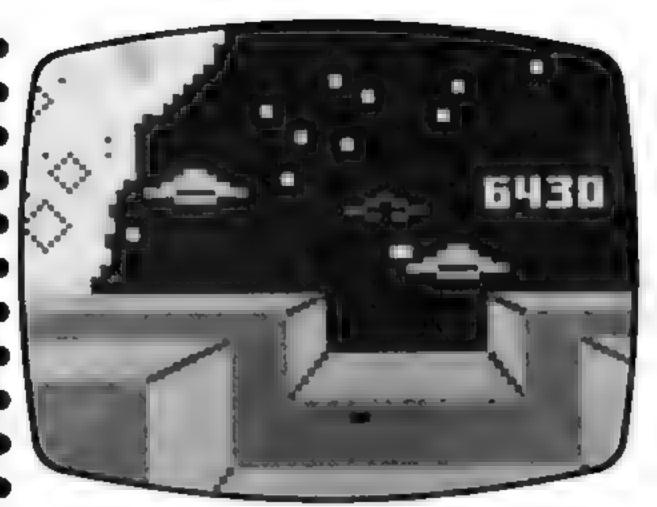
Several existing systems will add the power of speech sometime in the next 12 months. Mattel, Odyssey and Astrovision all expect to have this intriguing peripheral on sale before the end of the year. Atari may also offer a voice synthesizer as an option for its Super-Game though probably not until the system has already acquired a large audience of loyal fans.

All the voice boxes work more or less the same way. The synthesizer plugs into the cartridge slot and cartridges are then inserted into a similar niche in the synthesizer.

And now the games! Here's a system-by-system survey of the treats awaiting home arcaders in 1982.

Atari.

The Sunnyvale videogame king will release 12 new car-

tridges for the VCS and another dozen to accompany the debut of the Super-Game system. The VCS titles include **Super Breakout** and **Star Raiders**, both adapted from 400/800 programs, and a new adventure cartridge, **Haunted House**. Several coin-op hits will also appear in home versions, including *Pac-Man*, *Defender* and **Berserk**.

Activision.
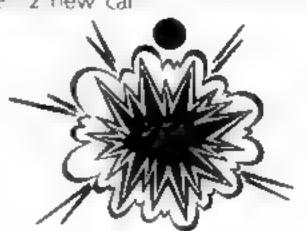
Barnstorming and **Grand Prix** are scheduled as the initial 82 releases for this mushrooming house of ideas. *Barnstormer* is the first game designed by Dave Crane's protege Steve Cartwright. It's a stunning visual achievement with highly challenging play action. *Grand Prix*, Dave Crane's first cartridge since **Freeway**, is simply the best auto race game available for the VCS, with spinning wheels, vivid colors and lots of delightful touches like oil slicks along the way.

Coming next summer is Al Miller's **Starmaster**, a stunning space adventure that uses both strategic and tactical elements. **Chopper Command**, meanwhile, from ace inventor Bob Whitehead, is a horizontally scrolling battle game in which an armed helicopter fights to protect the truck convoy traveling on the road below.

Mattel.

Intellivision will produce a score of new videogames in 82 ranging from a video pinball program to a pair of games based on the upcoming Walt Disney film, "Tron." **Advanced Dungeons and Dragons** will finally be available as will the long-awaited **Chess** cartridge.

Intellivoice, a synthesis unit capable of generating both male and female voices, should turn up this summer. Accompanying it will be three compatable game cartridges, including **Space Spartans**, which is essentially **Space Battle** with a voice track and somewhat blockier graphics.

King Kong Goes Coin-Op
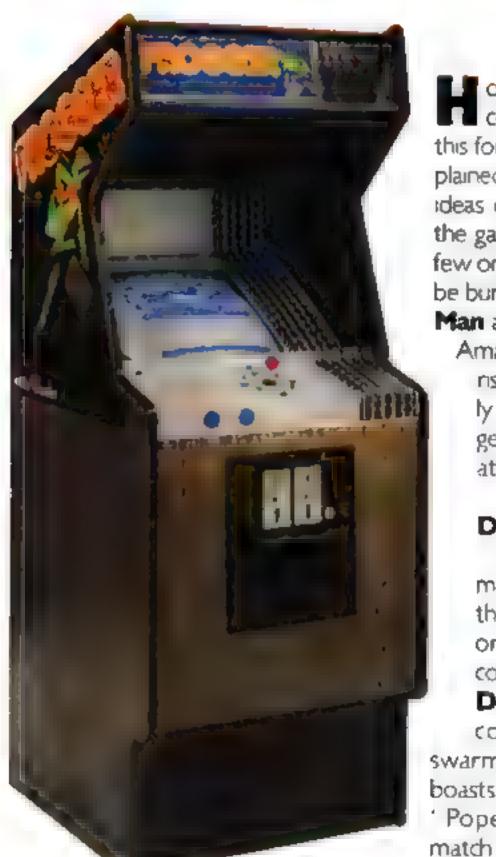
FROGGER

By Bill Kunkel

How quickly do things change in the commercial arcade world? How's this for an example? Just last issue I complained about the number of unoriginal ideas clogging the creative coin-slots of the game designers. It seemed as if the few original ideas would almost certainly be buried under the sheer mass of **Pac-Man** and **Defender** clones.

Amazingly, however, the cream has risen to the top and a handful of truly exciting coin-op videogames are getting the lion's share of arcading attention.

Donkey Kong (Nintendo)

Did I say "lion's" share? Better make that "gorilla's share", since the single biggest (in more ways than one) character in the "up-and-coming" department is Nintendo's **Donkey Kong.** Members of the coin-op cogniscenti are already swarming all over this charmer that boasts a storyline right out of a '40's 'Popeye' cartoon and graphics to match.

The concept behind Donkey Kong is as follows. Kong has snatched a beautiful woman and scaled the side of a massive building frame. The misguided monkey carries his prize to a perch at the very top of the skeletal superstructure, where he puts her down in order to do a cocky strut back and forth along the topmost girder and periodically thump his chest.

The gamer assumes the role of Mario, the brave, little carpenter who decides to save the lovely damsel. Mario begins the perilous climb toward Kong's aerie only to find that he may not survive long enough to even reach his enormous adversary, because the gigantic ape is rolling barrels down the slanting, Rube Goldberg type building frame. Mario must climb from level to level (they are connected by adders) while avoiding the barrage of barrels that the ape keeps cascading down upon him.

Mario can avoid the barrels by either climbing to the next level (where another rolling container may be on its way) or leaping over the oncoming casing. Arcaders accomplish this through the use of a special "leap" button. The gamer wins by actually reaching the top and saving the terrified beauty.

Much of *Donkey Kong's* appeal doubtless lies in its marvelous visuals. The barrels, girders and background are all faultlessly rendered, while the animation of Kong, Mario and the girl takes this videogame as close to the realm of film animation as anything else in today's arcades.
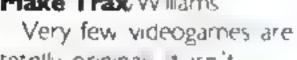
Frogger/Sega-Gremlin
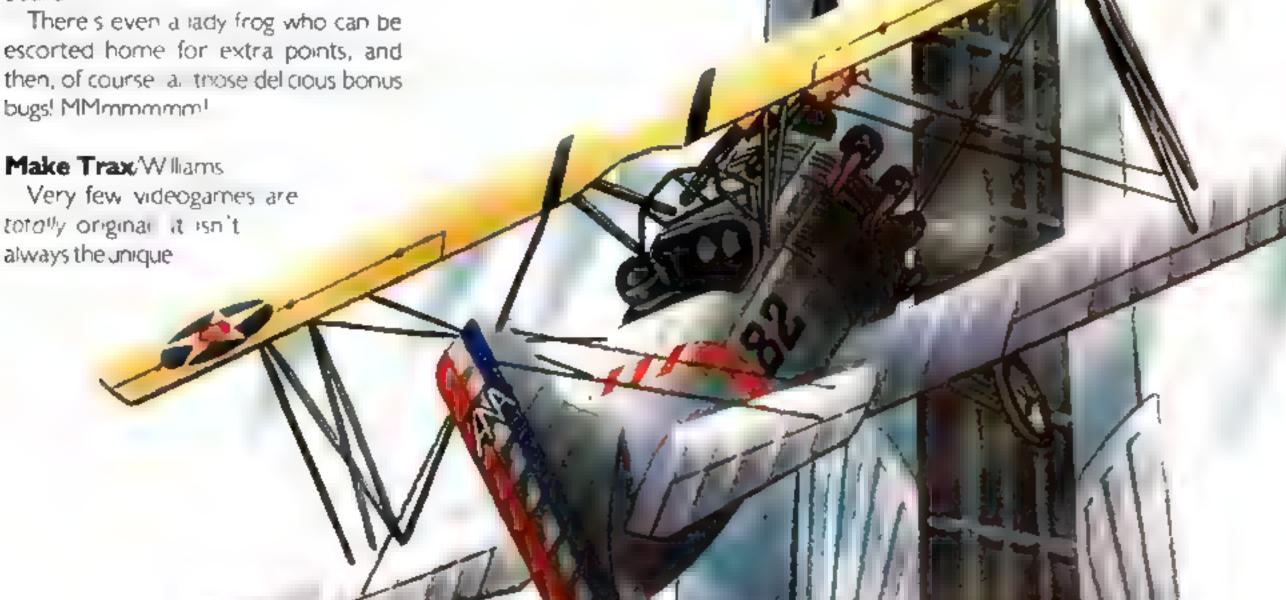
While space ships and explosions still star prominently in the coin-op universe a definite trend is developing toward "cute" games, with wider (read: female) appeal than the macho shoot-em-ups. **Frogger** is another in the latest batch of whimsical videogames. It may be the first coin-op inspired by a home videogame, a distinctly unusual turnabout. Dave Crane's **Freeway** (Activision for the Atari VCS) challenged gamers to get a chicken across a busy, ten-lane expressway. *Frogger* takes that idea and runs or hops with it. The result is a captivating blend of good game play and compelling graphics.

The top half of the playfield is a straight knock-off of Freeway's traffic-jammed roadway, but once the little croaker gets across the road, the more interesting part of his journey begins. Frogs must now get across a flowing river, leaping onto passing logs and turtles in order to make their way to the bottom of the screen where a special grotto awaits each of the adventurous amphibians.

Menaces include crocodiles, poisonous water snakes, otters and the occasional diving turtle, which may decide to go underwater just when a frog hops on board!

There's even a lady frog who can be escorted home for extra points, and then, of course all those delicious bonus bugs! MMmmmmm!

Make Trax/Williams

Very few videogames are totally original. It isn't always the unique

MAKE TRAX

QIX

ness of the basic ideas that determines a game's success, but how cunningly the designers add new wrinkles to old classic elements. For example, there were maze-chase games before **Pac-Man**, but it was Namco's innovative use of several elements that fused their creation into a work of original genius.

Williams **Make Trax** is without a doubt the most creative variation on the maze-chase theme since the gobbler made his debut. The gamer is a painter who must coat the floors of six maze-fields while being hassled no end by a bevy of delightfully maddening creatures. These range from mischievous kittens to flying birds whose droppings ruin the lovely paint job.

Each field offers a pair of scrolling tunnels, a paint brush and a roller, which must be used in order to deal with the mice, cats, goldfish and the rest. There's even an invisible man who periodically canters across the labyrinth, leaving a trail of footprints that must, of course, be repainted.

Make Trax seems to have all the elements of a classic arcade hit. The characters are engaging, brightly colored and beautifully stylized. The animation is as smooth as the flowing paint. Game mechanics are slightly more complicated than, say, *Pac-man* but are not in the least confusing.

Kick-Man is the next step beyond the hugely popular **Pac-Man**. The full scoop on Midway's newest will be in the next issue of **EG**.

KICKMAN

Qix/Taito

Qix (pronounced "kicks") is Taito's first major entry since its **Space Invaders**.

Like S! **Asteroids, Tempest** and **Defender**, *Qix* is an original. Nothing else in the arcades is quite like it, in concept, play or audio-visual effects. It is an original and entertaining contest that should make for a pleasant—and highly challenging—change of pace from mazes and pure action games.

What we have here is a designer that blends strategy and hand-eye skill in a fascinating, but graphically bland, contest. *Qix* is actually one of those computer-graphic demonstration programs in which a series of lines are created in sequence on screen. As a line at one end disappears, another materializes at the front, creating the illusion of spiralling movement across the screen. Using a "marker" controller, players must draw boxes on the screen without being hit and destroyed by the Qix. The Qix is overcome when the arcaders boxes in at least 75% of the screen. Bonus points are earned for filling up more space.

As with most coin-op contests, *Qix* gets harder as play progresses. Eventually the Qix undergoes fission and becomes a pair. Sparx, Fuses and Spiral Death Traps all show up if the arcader can keep the game going long enough.

WOMEN JOIN THE ARCADE REVOLUTION

By Joyce Worley

Want to see something new and exciting? Take a trip down to your favorite arcade and look around. If you can tear your eyes away from those rows of throbbing, pulsating machines, check out some of the players.

Women have officially arrived in the world of electronic gaming. They're not just there for decoration, either. These females can zap a centipede or blast an asteroid as well—and sometimes even better—than any man.

Arcading, especially playing at commercial amusement centers, has traditionally been a male hobby. The game parlors were as much a strictly male preserve as the old corner barbershop. It wasn't so long ago that gaming complexes were shabby, even downright dirty establishments situated on the backstreets of town or in neighborhoods so dangerous that few women would risk visiting one.

So a woman in an arcade was a rare sight, indeed. When a woman did actually show up, she could usually be found hanging timidly at the fringes of the action, watching her date prove his masculinity by bashing a poor defenseless pinball machine into submission. They rarely actually played the machines, and so didn't perform very well on those infrequent occasions when they did stick a coin in the slot.

Now this has all changed. Sleek and polished coin-op emporiums have almost totally replaced those ancient, seedy "penny arcades". Just as bowling alleys shed their disreputable image in the 1950's, so, too, have the amusement centers in the 1980's.

And women are beginning to respond to this change for the better by flocking to family amusement centers in record numbers, playing at levels of skill that challenge the men's best scores. In fact, liberated ladies are rapidly discovering that electronic gaming is one activity in which the sexes can compete on absolutely even terms. This is certainly not the case with such popular pastimes as tennis, swimming and basketball. The size and strength advantage which most men possess simply doesn't count here: Dexterity, finesse and quick thinking are the main ingredients of electronic gaming success.

If anything, home arcading has proven even more attractive to women. There, in friendly surroundings, they can concentrate on beating boyfriends and spouses without distraction.

Who are these lady arcaders? A study conducted by **Electronic Games** indicates that there is little difference, demographically speaking, between male and female players. The survey pegs the median age for women at roughly 26. One-quarter of the sample are under 16 years of age, the same percentage fall into the 16-25 bracket and 42% are between 26 and 40. A surprising 8% are in the over-40 group that pioneered arcading for their daughters and younger sisters.

One out of three female gamers are currently in high school, and an equal number have some schooling at the college level. A little less than 20% are

Atari's Centipede packs potent appeal for female arcaders

Move Over Guys, Here Come the Gals...

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One out of three female gamers are currently in high school, and an equal number have some schooling at the college level. A little less than 20% are

currently enrolled in a university.

Like the men, the typical lady arcader spends two to five hours a week playing coin-op and home arcade games. However, at least one-third of the survey respondents spend up to 10 hours a week in front of a gaming screen.

Atari is the overwhelming choice among women when it comes to home systems. Roughly 58% of the sample own a VCS. The Odyssey[2] proved to be the second-most popular unit, with the Intellivision trailing in third place. It's likely that the latter's concentration on sports games accounts for the relatively light interest among women.

Of course, gaming preferences vary as much among the gals as they do among the guys. Videogaming tournaments staged by Atari and Mattel have drawn quite a few women, some of them of championship caliber.

Jody Abramson of Massapequa, N.Y., for example, was among the winners in the first round of last fall's three-event Intellivision tournament held at New York City's World Trade Center. Although she proved herself one of the region's best electronic skiiers, Jody's heart belongs to Mattel's **Baseball**.

Even more successful on the tourney circuit is Ok-Soo Han. She won one of the major competitions at the Atari/TGI **Centipede** competition in Chicago. A champion on the local level before advancing to the finals in the Windy City, Ok-Soo has a rare opportunity for lots of practice, since she and her mother operate an arcade on the West Coast.

No one will ever accuse Ok-Soo of being a passive player. "I take risks," she admits. "That's just my style." Her favorite game is Centipede, so the Chicago showdown played right into her strength.

Paula and Kim Watts, a mother-and-daughter team from Shawnee, Okla., are typical of the new breed of lady arcaders. Introduced to the hobby at an ultra-modern amusement center in their town, they've both become frequent players within the last year. While 29-year-old Paula concentrates on racking up high scores on **Defender**, 11-year-old Kim has mastered the technique of clearing maze after maze at

Pac-Man. Just prior to their brief interview, the Watts family acquired an Atari VCS and both—along with husband Tony and son Cory—are logging lots of hours in front of the home system.

No discussion of women as electronic gamers would be complete without a deep bow in the direction of Midway's incomparable Pac-Man. The game's record-shattering success derives from its overwhelming popularity among female gamers. Oh, it does well among men too, but it was heavy play by women that enabled Pac-Man to set earnings records in 1981.

Midway, according to spokesman Stan Jarock, is keenly aware of its debt to lady arcaders and is planning a very special sequel to its famous gobble game, **Ms. Pac-Man**.

The game, which utilizes four separate mazes, features a gobbler with a little pink bow on her head. At various points in the game between rounds, Ms. Pac-Man meets the original male version, and a little electronic wedding takes place. If the player's final score is high enough, Ms. Pac-Man ends with a stork

flying onto the screen carrying a tiny gobbling bundle of joy.

"Pac-Man was the first commercial videogame to involve large numbers of women as players," says Jarock. "It expanded our customer base and made Pac-Man a hit. Now we're producing this new game, Ms. Pac-Man, as our way of thanking all those lady arcaders who have played and enjoyed Pac-Man."

You can be certain that those lady arcaders—and there are more of them every day—will be anxiously waiting ⊖

Lady arcaders helped make Pac-Man the top coin-op.

Odyssey.

Only two new games are definitely promised by Odyssey but both are impressive additions to the O₂ line. **The Great Wall Street Fortune Hunt** is the third entry in the Master Strategy Series and promises to be the most captivating computer money game ever developed. Again designed by Steve Lehner and Ed and Linda Averette, it has drawn raves from everyone who's seen it. Also on the way is a science fiction contest with UFO-style graphics, tentatively titled **Freedom Fighter.**

Astrovision

Astrovision not only showed its ZGrass keyboard, but several top-line games as well. Space Fortress is a space shoot-out that's long on action, color and flash. **The Wizard**, from **Wizard of Wor** designer Bob Ogdon, is a virtual duplicate of the coin-op version and **Quest for the Orb** promises to be one of the most unique videogames of all time.

This Texas-based videogame company will produce from 10 to 12 new cartridges for the Atari VCS. Their first game, **Skeet Shoot**, is a decidedly mediocre entry. Their first in-house program, however, **Spacechase**, is a remarkable outer space blast-'em-up with super visuals and fluid play.

U.S. Games.

The only game previewed by U.S. Games was a VCS compatable program called **Space Jockey**. It's a horizontally scrolling target shoot with adorable graphics and truly challenging play action. They promise as many as six more games this year.

Imagic
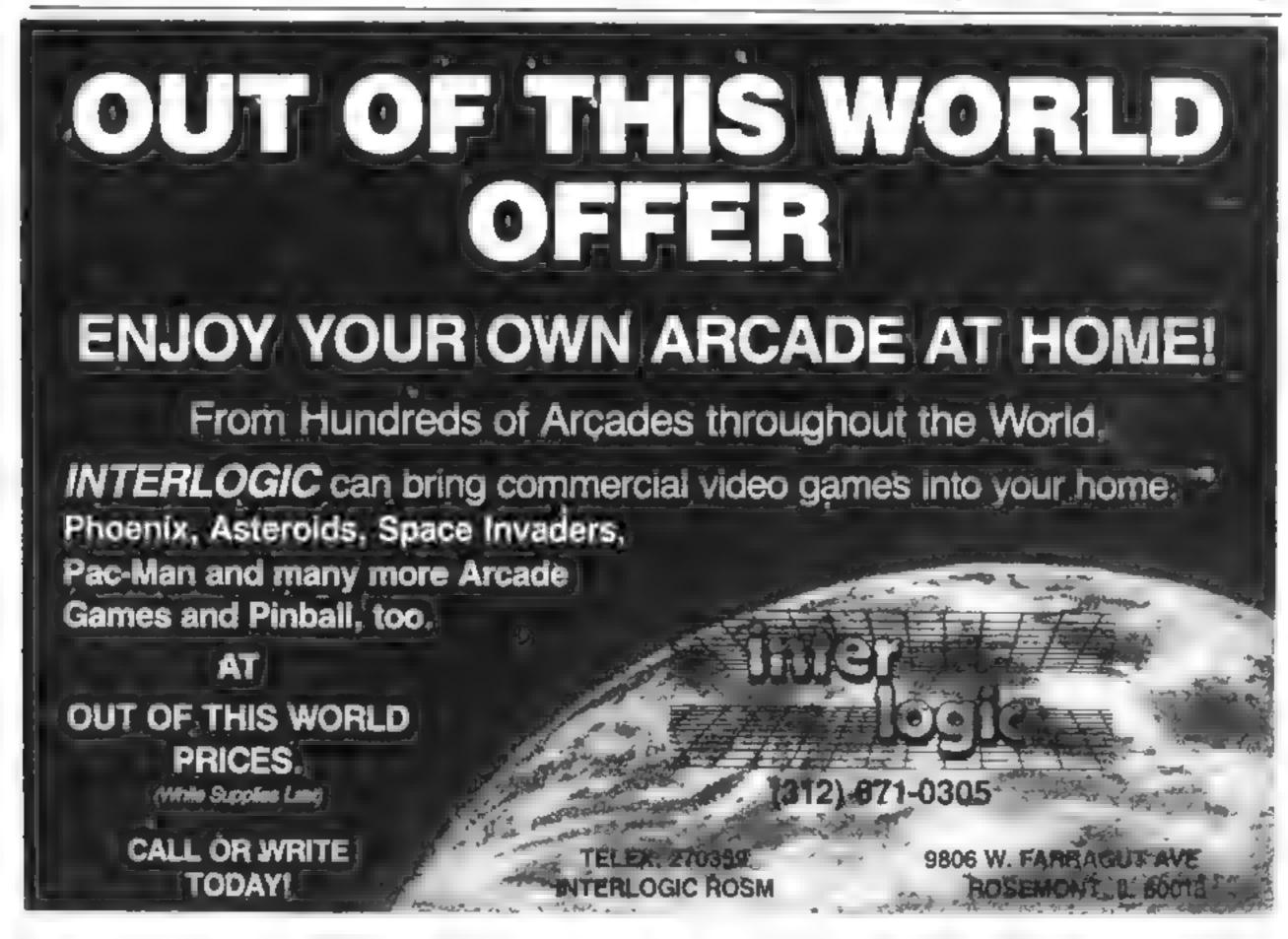
A major new software producer for both the VCS and the Intellivision, Imagic has top designers who formerly worked at both source companies. Its three initial releases are all Atari compatable only, but the fourth will be for the Mattel system.

Titles were **Trickshot**, a video pool game with slick visuals, **Demon Attack**, a smoothly detailed, vividly colored space shoot-out, and **Star Voyager**, another strategic tactical space adventure with cockpit perspective.

Coleco

Coleco promises videogames compatable with both the VCS and Intellivision systems. They obviously panned the coin-op waters and came up with the rights to Exidy's **Venture**, and **Mouse Trap** as well as **Phoenix**, **Vanguard** and **Round Up** from Centuri, and Nintendo's smash **Donkey Kong**.

Although the videogame market is a long way from saturation, the overwhelming number of new hardware and software releases will be competing fiercely for the attention of the arcading public. The results of this videogame boom remain to be seen, but one side effect is inevitable—a better selection of higher quality games. Ⓖ

NEW PRODUCTS

Limited Gold Edition — Scott Adams Adventure Series
$100 (Adventure International for Atari, Apple II, and TRS 80)

This handsome, book style package contains autographed and individually numbered copies of the first 12 programs from Scott Adams' ground breaking "adventure" series. Destined to be a collector's item.

Pac-Mania (Video Paraphenalia PO Box 15937, Philadelphia, PA 19103, write for catalog and prices)

With **Pac-Man** fever sweeping the country, gobbler mavens now have a central location from which they can purchase a selection of **Pac-Man** related items. The big sellers are th gorgeous "I Love (indicated by a heart with a gobble missing) Pac Man" silk-screened t-shirts, but other fantastic items include baseball caps and shirts, cups, posters, tote bags, label stickers, and — our favorite — a full size blue beach towel featuring a full color Pac Man playfield.

PLAYERS GUIDE TO
ELECTRONIC
WARGAMES

Videogames

ELECTRONIC WARGAMES

From Battle Board to TV Screen

Although abstract games with a military theme such as chess date back to the ancient world, modern wargames are a much more recent invention. Charles S Roberts produced the first military strategy boardgame in 1958, when the infant Avalon-Hill Company published Tactics II. (A limited edition of Roberts' prototype, Tactics, preceded this more elaborate commercial effort.)

Tactics II treated the subject of a land war between two mythical countries. Battles occurred on a multi-colored map sectioned into half-inch squares to regulate movement. Each nation's forces included two main types of combat units, infantry and armor, plus a few specialized divisions with air-borne, amphibious or mountaineering capabilities.

It wasn't long before Avalon-Hill brought forth the first historical battle game, Gettysburg, followed by a library of diverse titles that is still growing today. More refinements, such as Roberts' introduction of a hexagonal grid for movement, helped military games develop into a hobby that involves hundreds of thousands of people. As wargaming grew in popularity, other manufacturers made their debuts, including Simulations Publications, Inc (SPI) and Game Designers Workshop. Bored wargamers can now choose from hundreds of titles covering every military engagement real or possible from the dawn of civilization to the hypothetical far future.

Electronic military simulations on a par with the sophisticated boardgames are only just starting to appear but war became a staple for head-to-head videogames almost from their inception.

Armored Assault

Combat is probably the most widely distributed VCS cartridge by virtue of the fact that it comes packed with the VCS console. Steering those little vehicles around the various mazes represents the first home arcading experience for many electronic gamers. Panzer Attack (Astrovision) is a slightly more visually attractive version of the same situation for the Professional Arcade, while Triple Action (Mattel) has a well designed tank shoot-out

for the Intellivision system.

Armored Battle, by Mattel for the Intellivision, is in a class by itself, however. This is much less of an arcade-style contest than the other three cartridges, stressing such elements as line-of-sight for firing and movement speed that varies according to the terrain.

Dogfight in the Skies

Representing air battles convincingly has long frustrated boardgame designers, but this type of freewheeling battle is perfect for the video screen. Atari offers arcade-style interpretations of fights in the skies in both its Combat and **Air-Sea Battle** cartridges while Astrovision's **Red Baron** adds such realistic touches as 3-D perspective.

Activision will shortly release a title that reflects the latest trends in air-mobile tactics. **Chopper Command.** Using a steering system somewhat reminiscent of **Defender,** the gamer guides armed helicopters back and forth across the screen in an attempt to protect a convoy traveling along the road at the bottom of the playfield.

Victory at Sea

Seawolf (Astrovision) and Air Sea Battle (Atari) furnish gamers with a taste of naval action. The Torpedo variant on the Air Sea cartridge rather resembles a shooting gallery with appropriate military hardware as the targets. The steerable missile greatly enhances this game, which is one of the finest head-to-head contests in the VCS library.

Mattel's Sea Battle gives gamers the chance to lead fleets in a global scale war on the high seas. Action switches from

SEAWOLF

Videogames Go To War

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Mattel's Sea Battle gives gamers the chance to lead fleets in a global-scale war on the high seas. Action switches from strategic to tactical and there's a surprising amount of differentiation among the various types of ships available to each side in this two-player contest.

Global War

Conquest of the World (Odyssey) is the electronic game for those weaned on night-long sessions of Diplomacy or Risk. As the leader of one of the game's 43 nations, you must combine power politics and discrete use of land, sea and air forces to propel your country to the pinacle of world domination.

Conquest of the World is especially good for a socially oriented evening of gaming, because it can be played by up to six people. The making and breaking of alliances is constant, responding to minute shifts in the world balance of power, so there's lots of entertaining interaction among the participants.

War Against the Robots

Command control is the single most important factor in **War of Nerves** by N.A.P.'s Odyssey division. In this unusual two-player game, a pair of armchair generals square off in a series of battles each leading a small army of fighting robots.

The terrain of the battlefield is randomly generated by the computer program and is different for every encounter. It includes a far number of obstacles and places behind which soldiers can hide.

War of Nerves pivots on a single concept which is, as far as is known, unique to this videogame cartridge. The mechanical men are not directly moved by manipulating the joystick. Instead the controller establishes only a movement tendency. That is, pushing the stick to the right doesn't send any individual soldier in that direction, but rather nudges the whole army at once.

This system opens the door for each leader to develop marvelously byzantine strategies—and then watch the troops execute them on the home screen.

War of Nerves is a genuine one of a kind among videogames, and a certified treat for electronic warriors.

SEAWOLF

ARMORED BATTLE

Go To War

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eered with the non-electronic **Waterloo**. The seesaw nature of the engagement and tantilizing speculation concerning possible outcomes have made Napoleon's last stand a frequent topic for simulation.

A computer program treating this pivotal battle is available from Crystalware for both the Apple II and Atari 800 under the title **Waterloo II**. A corps level game covering both Waterloo and Leipsig

Military affairs experts have called it the first modern war. It was during the conflict between the North and South that traditional strategy began to mutate in response to the introduction of such factors as ironclad armor for naval vessels and the widespread availability of the machine gun.

COMPUTERS CREATE THE ELECTRONIC BATTLEFIELD

ELECTRONIC WARGAMES

Wargames for programmable videogame systems are fast-paced fun, but the superior ability of microcomputers to manipulate data is giving birth to a generation of elec-

tronic simulations as finely designed and accurately detailed as the best boardgames. Effects that are difficult to produce without forcing the players to do a lot of paper work in conventional war games, like hidden movement can be accomplished effortlessly using the computer.

Vive La France!
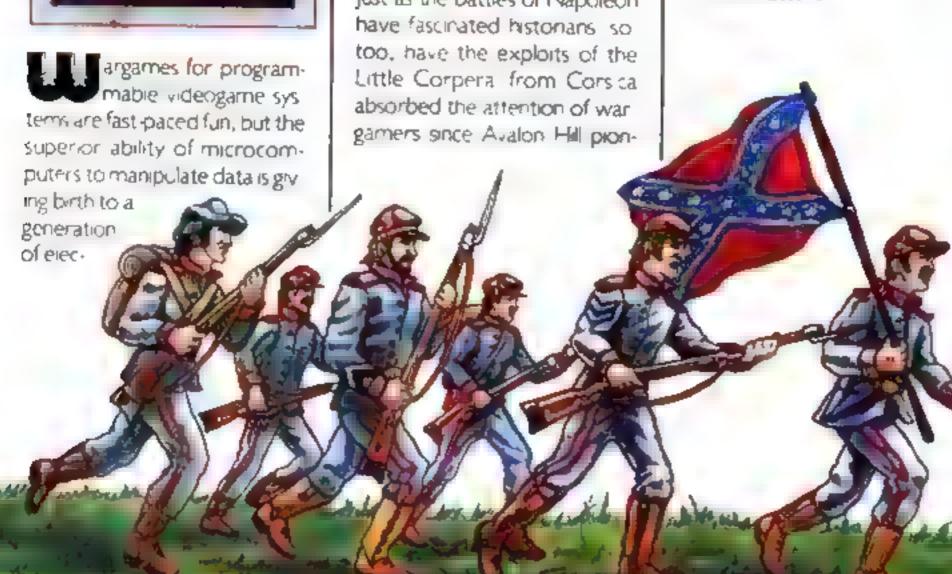
Just as the battles of Napoleon have fascinated historians so too, have the exploits of the Little Corporal from Corsica absorbed the attention of war gamers since Avalon Hill pion-

Napoleon's Campaigns 1813 & 1815. (Strategic Simulations) is based on an acute analysis of the military doctrines of that day. Maintaining lines of communication becomes at least as important as properly orchestrating an enfilade, and would-be generals will quickly learn that giving an order and seeing it properly executed are two very different matters.

The Battle of Shiloh (Strategic Simulations) allows gamers to refight one of the most evenly matched and controversial engagements of the whole war. Both sides claimed victory when the smoke cleared in April 1862 but when the Confederacy's inability to wrest a decisive win from the Union army led by Ulysses S. Grant ultimately doomed the South's cause.

The program plays either solitaire or head-to-head with a solo human commander having the option of choosing either side. Of potentially great help to novices is an option which lets the computer fight out the game.

The combat rules are the most interesting feature of *The Battle of Shiloh*. As commander the player is permitted to select a level of risk daring, bold, conservative or cautious for every skirmish. Each side also chooses an offensive or defensive strategy as appropriate, each time units clash in the field. The strength of the units involved modified by these orders

SHILOH

and morale determine the outcome.

Strategic Simulations designers David A. Landry and Charles T. Procsel Jr. have captured the feel of Civil War fighting. Electronic wargamers can only hope that this is the first of a comprehensive series.

Re-fight World War II!

The Second World War is the most popular subject for wargames and is likely to remain so for many years to come. No other period can match the variety of weaponry used by the Allied and Axis forces, yet the nuclear terror weapons that make a mockery of traditional military tactics and strategy are virtually absent.

Among gamers who specialize in WW II, interest is particularly high in the campaigns on the eastern front and battles which made strong use of tanks. That's why it is particularly good news that major publishers have released computer programs dealing with both subjects. Chris Crawford proves himself the kingpin of military simulation programmers with the release of **Eastern Front** (Atari Pro-

gram Exchange) for the Atari 400/800 and **Tanktics** (Avalon Hill) for just about all the popular micros.

Both are remarkable achievements. *Eastern Front* manages to be as comprehensive as any other electronic wargame—and does it in only 16K of memory for the tape version. (The disk is 32K.) Elegant systems permit the commander to view either one portion of the battle or the overall strategic situation by inputting simple commands.

Tanktics lacks *Eastern Front's* great graphics, but it can't be beat for those who can never find an opponent for a rousing game of **Panzerblitz**.

Strange Lands— and Stranger Battles
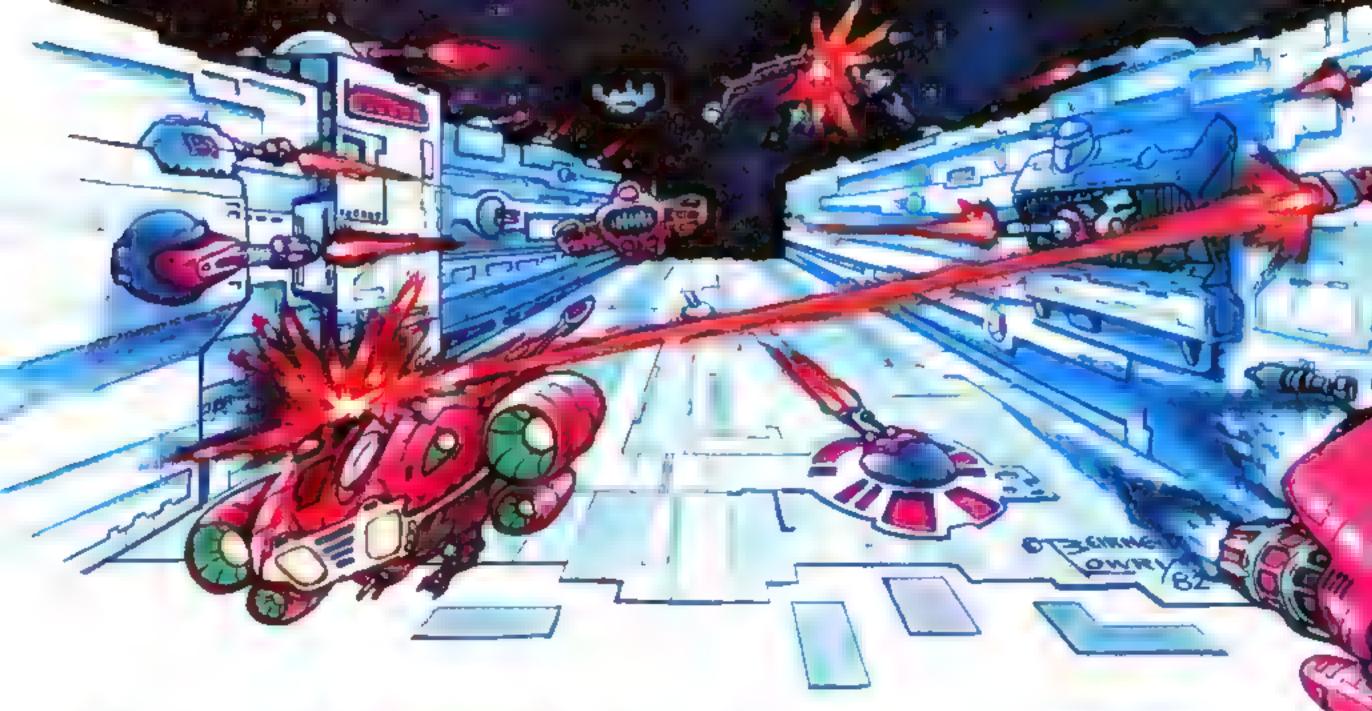
Most fantasy stories are largely concerned with the heroic exploits of individuals, but large-scale military actions can also be found in significant numbers. J.R.R. Tolkien's saga of the one ring, for instance, includes such major engagements as the Battle of the Five Armies and the Battle of Helm's Deep.

The Shattered Alliance (Strategic Simulations) gives electronic strategists the chance to see how they might lead an army in a world where fantastic creatures are an everyday fact and magic is as powerful as artillery. Projected as the first of a lengthy series, *The Shattered Alliance* makes use of SSI's new "Rapidfire" movement system that is said to greatly speed play.

For those who find the idea of elves, dwarves and warrior maidens riding unicorns too distracting, this program offers the option of playing four scenarios as a straight pre-gunpowder wargame.

Dark Forest (Sirius Software) is a fantasy war game of a somewhat more abstract nature. One to six players attempt to conquer their neighbors and loot captured castles of their treasures in this entertaining area-movement game. Getting in everybody's way, especially in the solitaire variants, are the Gruds. These belligerent little demons multiply like rabbits and attack any human-held territory they can reach.

WARGAMES INVADE THE ARCADE

Dueling with the Red Baron

One of the most popular, recurring themes in battle-oriented videogames is the dogfight. Especially well liked are biplane contests wherein a pair of World War I flying aces spray the skies with the chatter of machine gun fire. These games traditionally feature side view perspectives that allow for loop-de-loops and head to head action, but preclude banking and other more exotic simulations.

With Atari's coin op game **Red Baron**, the traditional dogfight is wedded to the modern computer flight simulator placing the arcader inside the cockpit of his Fokker. Eye bending visuals are produced by Atari's vector graphics

Quadrascan monitor. Players see the top of their whirling prop blades at the base of the screen and fire their machine guns blind into the

death filled skies. Fire is indicated by a scattershot spritz of bullets right over the top of the propeller. Pilots engage other aircraft as well as observation balloons and ground installations.

Perhaps the ultimate in a dogfight simulation is the sit down version of *Red Baron*. Wrap a silk scarf around the neck, don a flight cap and lower the goggles, and keep an eye open for a beagle piloted Spad!

Into the Jaws of Death

Probably the single most influential wargame in today's commercial arcade arsenal is Stern's **Scramble**. One of many horizontally-scrolling shoot out contests, Scramble is distinguished by several factors. The ship for example must be piloted through a cavernous maze that literally bristles with ground-based interceptor missiles and other exotic weaponry. Scramble has five separate phases, each scenario pitting the arcader against a different defense system.

Joystick controlled, the Scramble warship can launch a straight-on laser blast or

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Joystick controlled, the *Scramble* warship can launch a straight-on laser blast or drop bombs on intended targets with enemy fuel storage silos possessing special value.

A nice counterbalance to the tactical-y-oriented coin-ops such as *Scramble* is **Strategy X**, also by Stern, which purchased the U S rights from Konami. Here, arcaders must navigate their tanks through a quartet of highly challenging scenarios while besieged on all sides. Points are earned for refueling, but the ultimate objective is to destroy an enemy base.

Strategy X is a somewhat off-beat, more abstract design than is usually found in arcade wargames, but it is no less riveting. The audio features sound effects synchronized to create incredible explosions and crashes. *Strategy X* is the sort of game that appeals not only to the Han Solo within us, but to our General Patton side as well.

Fighting in the Streets

As your coin trips the start mechanism a breathtaking overhead view of a battle ravaged city bursts onto the screen. Crumbling walls, abandoned dwellings and shell-pocked streets attest to a long siege. This is the world of Cinematronics **Armor...Attack**. Arcaders patrol this bombed out locale in an armed jeep, hunting down a never-ending complement of tanks and helicopters.

Super-Tank Shoot-Out

Deftly employing the vector graphics Quadrascan monitor to create extremely high resolution images *Bat-*tlezone puts the gamer behind the dual joystick controls and assists him with an on board tracking computer.

The setting for this high tech battle is the surface of the moon.

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"EITHER THIS IS THEIR BEST SPACE GAME EVER, OR MY LIVING ROOM IS GOING 165 MPH."

STAR STRIKE

Aliens up ahead. Aliens attacking from the rear. Alien ships on every side. Meanwhile, the earth is moving steadily into range of enemy missiles, as the alien planet rushes by below.

Presenting Star Strike. The exciting new space game complete with brilliant colors, gripping tension, and special effects so realistic they appear three-dimensional. So you almost feel like you're flying.

Be careful, though, and don't lose your concentration. You've got to destroy the enemy planet. Before it destroys the earth.

Play Intellivision Star Strike. Then, when the battle's over and the dust is clear, compare it to other space games. We think you'll agree that color, excitement and special effects make Star Strike the clear winner.

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INSIDE GAMING

By Arnie Katz

It takes three things to make a good designer, says Bob Ogdon, President of Action Graphics and a vital force at Dave Nutting Associates. "First I look for people who have other interests besides computers, things like photography or carpentry. We don't want the stereotypical computer nerd. Then of course, a good designer needs a lot of creativity. And a designer should love the field."

Unconsciously the soft spoken 26-year-old had described himself perfectly. Since graduating from the University of Puget Sound in Tacoma, Wash., with a degree in psychology, Ogdon has produced an impressively varied array of games for both the coin-operated and home arcade fields. His latest achievements, **Space Fortress** and **The Wizard**, both for Astrovision, stamp him as one of today's truly outstanding game creators.

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Meet Bob Ogdon, the Man Behind the Wizard

son, designed what is now the Astro Professional Arcade for Bally Manufacturing Co. "He is my mentor," Ogdon asserts. "I've learned everything from him." He credits Nutting with the inspiration for two of Bally's greatest coin-op hits, **Gorf** and **Wizard of Wor.**

As with many of us, the designer entered his chosen career as a result of a lucky accident. Bob Ogdon's wife Julie in-

troduced him to Dave Nutting, who flew him to Chicago for a mutual look-see. Excited by this exploratory trip, the couple threw everything they owned into the back of their Datsun and headed for the Second City.

Under the direction of Nutting, Ogdon joined the 20 designers working on games for what was then called the Bally Professional Arcade. His first assignment was to create a version of the ball-and-paddle wall-bashing game for the system. Of **Brickyard**, he notes. "There were no copyright laws covering electronic games at that time. It was common practice to adapt existing ones to new systems."

The same cartridge also included **Clowns.** Bally purchased the design from Exidy and had Ogdon perform the translation of the coin-op original to the home screen in a form that has still not been surpassed.

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Brickyard/Clowns, even apart from the fact that it represents Bob Ogdon's debut, has had a far-reaching effect on the hobby. It was the first ROM cartridge utilizing 4K of memory. "At first ROMs were too expensive, so we had only 2K games," he recalls. "Clowns was the first 4K. Now all our games for the Astro system are 8K."

Once acclimated to the demands of his new career, Ogdon really began to hit his stride. "I had always played football in high school and college," says the electronic game artist who still has the lithe build of a quarterback or free safety. "They had a football game, but I convinced them to try mine." State-of-the-art when introduced, Astrovision's **Football** has only Intellivision's **NFL Football** to rival it for pigskin supremacy.

"I try to recreate reality," Ogdon explains, "and I wanted something more than blips on the screen." That's why, though his game offers a wide variety of possible plays, coaches can still ad-lib at the line of scrimmage just like Dan Fouts or Joe Montana. "You can give a lot of power to the players," he adds. The first use of horizontal scrolling greatly enhances Astro's Football, opening up the action by providing a larger gridiron.

A three-quarters perspective was considered for Football, but ultimately the decision was to stick with the overhead view. "Football takes a lot more exactitude than a sport like soccer."

The circumstances under which **Pinball** came into being are still vividly etched in Ogdon's memory. "Our home is out in the country and rather isolated," he says. "We had a big snowstorm that kept us in the house for about a month. When he emerged from this enforced seclusion it was with the basics of this two playfield cartridge in hand.

Shortly thereafter, Bally got a case of cold feet and withdrew from the home arcade sweepstakes to concentrate on the business it knew best — coin-op amusement machines. Mindful of Ogdon's success with Nutting, Dave Nutting Associates put him to work on **Extra Bases**, the latest in a distinguished line of Bally baseball machines. "Hardware problems prevented it from becoming a true success," he observes.

The same could hardly be said of Ogdon's next major effort, Gorf. The guiding concept in this case was to give good players a little more variety than found in the usual invasion game. The result was the first multi-field commercial arcade unit.

And then came Wizard of Wor. "We wanted to get away from simply moving the gun left and right and shooting upward, and we wanted a game which two people could play together or against each other," he says. "We decided on a maze, because mazes introduce strategy.

"When we put a voice into the machine, that got us into the mythology of who exactly was doing the talking. So we invented the Wizard. We used the Wizard to disrupt the flow of the game.

Ogdon and the crew working with him on the project next decided to make the Wizard a mystery, so that players would have to work to get at him. Then to make the game increasingly challenging, they started subtracting the walls of the maze at the higher skill levels.

"That way, there's a whole series of goals," he says. "Of course, getting to the pit is the ultimate.

Originally Wizard of Wor had relatively small on-screen characters. Somehow it didn't look just right. After Ogdon and staff saw a then-new coin-op called **Pac-Man**, they switched to much larger characters for their game.

Great advances in technique are speeding the game design process, according to Ogdon. Now it is possible for a company to get a game from a new addition within six months instead of the two years it once took. After drawing a picture of what he'd like on the screen, a graphics programming language similar to FORTH allows him to animate it in less than an hour. With this language, Ogdon boasts "you don't have to be a nitty gritty bit biter."

Right now Ogdon is supervising a new designer, Dave Armstrong's first project using this secret, patented system. He confidently predicts great success for Armstrong's **Quest for the Orb** program for the Astro Arcade due out later this year.

And when those promised innovative designs reach the commercial arcades and retail electronic game stores, it's a safe bet that several of them will bear Bob Ogdon's stamp of creativity. ⊖

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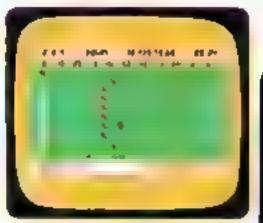
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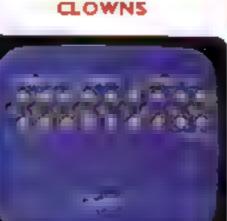

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ARCADE ★

Las Vegas' Circus Circus Hotel/Casino combines electronic

If a videogame designer built a city it would look like Las Vegas. The skyline is an eyeball-blasting symphony of every type and color of neon light ever conceived by the mind of man. The famous Las Vegas Strip blazes from end to end with super-luxury hotel/casinos, each aspiring to the ultimate in gaudy opulence.

Even here, Circus Circus stands out as a breed apart. Its pink-and-white big tops proclaim its status as the city's first and foremost family-oriented fun palace. Like most of its competitors, Circus Circus features a huge casino on its main floor, but the elevator to the mezzanine is the magic doorway into one of the country's most unusual arcades.

The 1,610-room establishment derives its name from the fact guests can view live circus acts 13 hours a day for free. Ringing the world's largest permanent circus are old-fashioned carnival booths where skilful players can win valuable prizes and — you guessed it! — a huge coin-operated arcade crammed with nearly 100 videogames.

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nine, just good wholesome fun — and lots of it. "The idea was to give adults with children more incentive to come to Circus Circus," explains a spokesman for the hotel, which operates a similar set-up in Reno as well. "Grown-ups can gamble downstairs while their youngsters play up here under adult supervision in complete safety."

Dave Marie, Circus Circus arcade manager, estimates that the arcade area hosts 200-300 gung-ho gamers at any one time. Although the original intention was to provide activities for younger children, Marie notes many of the players actually fall into the 17-25 age group. The most popular games at Circus Circus are Donkey Kong, Pac-Man, Tempest and Turbo, a hi-res road racing game from Sega-Gremlin. Multiple copies of the same machine are always placed in a cluster arrangement.

So when staying in the desert pleasure city, remember that all the excitement isn't at the gambling tables. Circus Circus' mezzanine is the center of arcading action 18 hours a day.

AMERICA

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Videogames You'll

By Les Paul Robley

A Humorous Look at Some Unlikely Future Videogames

Competition! It can be a truly wonderful thing for a field such as electronic gaming. It drives creators to ever greater achievements in an effort to top rival inventors when it comes to producing games that are more exciting, more colorful, more realistic!

Unfortunately, as more and more companies jump on the videogame bandwagon, the number of possible subjects available for conversion into computerized programs is dwindling rapidly. In fact, at the rate things are going, videogame companies may find themselves embracing subjects they previously wouldn't have touched.

To prove this is no mere idle speculation, here are some selections from a videogame catalog that recently came into my possession. I have since heard that the ideas were largely abandoned, but with game subjects being used at the present rate, who knows whether or not they will remain unexplored?

blare and fenders bend. If you beat the clock and punch in on time, a whistle signals your triumph. But if you fail to achieve this goal, a grating computer voice lets you have it between the eyes with a blunt "You're fired!"

ALIEN INVASION

Freeway Menace

It's a no holds barred race to the death on the LA freeway system. You are ten minutes late for work. Your job is over 30 miles away. Heavy traffic lies between you and an irate boss. Put your driving skills to the test as you race against time and risk both whiplash and job loss. Realistic sound effects added for your enjoyment. Tires screech, horns

Alien Invaders

You are the head of a U.S. Border Patrol crossing who must search incoming trucks for illegal aliens without unduly hindering law-abiding vehicles. Your opponent controls the smuggling operation, hiding aliens in fruit trucks, storage bins and tourists' luggage. Can you seal the border? (Two players)

Nuclear Wargames

"General quarters! General quarters! All hands man the battle stations! Check your bearings on the strategy chart... commence firing!!" Both players possess an equal stockpile of nuclear and thermonuclear weaponry. First player to destroy his opponent's half of the globe wins. (Two players)

Prom Night Massacre

It's time to put on your corsages, girls, and get out your mace! It's prom night and there's a madman loose in the school building! Is it the stranger seen lurking around campus during girls' gym? Or could it be one of your closest friends who has a hang-up nobody knows about?

Only your opponent knows for sure as he cleverly corners and attempts to slash you—and your computer-controlled classmates—into strips of data tape. You narrowly stave off his attack as he pursues you with baseball bats, hockey sticks and assorted phys ed equipment. Your opponent gains points for every computer-operated classmate he wipes out while you rack up points by eluding his crazed attacks. First player to score ten points—or eliminate the other wins. (Two players)

Gang Wars

Alone, you are a member of a street gang who has accidentally strayed onto

Videogames You'll   Never See (We Hope!)

By Les Paul Robley

A Humorous Look at Some Unlikely Future Videogames

Competition. It can be a truly wonderful thing for a field such as electronic gaming. It drives creators to ever greater achievements in an effort to top rival inventors when it comes to producing games that are more exciting, more colorful, more realistic!

Unfortunately, as more and more companies jump on the videogame bandwagon, the number of possible subjects available for conversion into computerized programs is dwindling rapidly. In fact, at the rate things are going, videogame companies may find themselves embracing subjects they previously wouldn't have touched.

To prove this is no mere idle speculation, here are some selections from a videogame catalog that recently came into my possession. I have since heard that the ideas were largely abandoned, but with game subjects being used at the present rate, who knows whether or not they will remain unexplored?

Freeway Menace

It's a no-holds-barred race to the death on the LA freeway system. You are ten minutes late for work. Your job is over 30 miles away. Heavy traffic lies between you and an irate boss. Put your driving skills to the test as you race against time and risk both whiplash and job loss. Realistic sound effects added for your enjoyment. Tires screech, horns

blare and fenders bend. If you beat the clock and punch in on time, a whistle signals your triumph. But if you fail to achieve this goal, a grating computer voice lets you have it between the eyes with a blunt 'You're fired!'

Nuclear Wargames

'General quarters! General quarters! All hands man the battle stations! Check your bearings on the strategy chart, commence firing!!' Both players possess an equal stockpile of nuclear and thermonuclear weaponry. First player to destroy his opponent's half of the globe wins. (Two players)

Prom Night Massacre

It's time to put on your corsages, girls, and get out your mace! It's prom night and there's a madman loose in the school building! Is it the stranger seen lurking around campus during girl's gym? Or could it be one of your closest friends who has a hang-up nobody knows about?

Only your opponent knows for sure as he clever'y corners and attempts to slash you—and your computer-controlled classmates—into strips of data tape. You narrowly stave off his attack as he pursues you with baseball bats, hockey sticks and assorted phys ed equipment. Your opponent gains points for every computer-operated classmate he wipes out while you rack up points by eluding his crazed attacks. First player to score ten points—or eliminate the other wins. (Two players)

Gang Wars

Alone, you are a member of a street gang who has accidentally strayed onto

rival turf. Fighting against almost insurmountable odds, you must use the weapons at your disposal —three knives, a zip gun and a lead pipe. With luck you may even meet up with computer-controlled members of your own gang—one of whom is a martial arts expert!

But watch out! Both gangs are vulnerable to the randomly appearing roving police cars. The terrain over which you struggle will constantly shift, calling for new tactics. Computer selects at random from over 250 slum areas around the nation (street maps with authentic scale are included in deluxe boxed set). Whip out those joysticks and let's rumble! (One player)

Medflies
Deluxe Medflies

(Platinum Star Edition)

A variant of **Asteroids**, you are a farmer whose field is being ravaged by a swarm of Mediterranean fruit flies. With various forms of pesticides, smoke and bazooka fire, you must save your crops. But be warned—too much fire power could destroy your crops more quickly than the insects!

In **Deluxe Medflies**, the insects adapt quite readily to your sprays, so new insecticides must be con-

RUSH HOUR DEATHRACE

Roman Circus I

You and a teammate find yourselves in a Roman arena ca. 74 A.D., where you compete for the right to worship the religion of your choosing. All around you are hungry lions, bears and Komodo dragons, all computer controlled and all intent on eating you. Defeat them and the computer sends out a regiment of gladiators to have at you. (One or two

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fearless Christians.

Roman Circus II

In the second version of this sure-fire hit, the roles are reversed. You and another player become the hungry animals, gaining points by devouring as many Christians as possible before the computer judge signals the end of the time limit. Bon appétit!

PADI Scuba Scare

Spit in your mask and tighten up that weight belt, for you and your opponent are diving buddies this time. Using the U.S. Navy Dive Tables provided with this game cartridge, you and your buddy must dive to a depth randomly determined by the computer. You descend in murky, turbulent waters in search of the lost treasure of the Andrea Doria. With only 500 psi gauge pressure remaining in your tank you must conserve all your energy as you risk Decompression Sickness, Nitrogen Narcosis and Subcutaneous Emphysema in a desperate attempt to locate the treasure before your buddy, and then reach the surface in one piece.

But be forewarned—various horrors of the deep including Scorpions, Sting Rays, Man-O-Wars, Orcas and Great White Sharks will try to thwart your plans, as well as your opponent buddy who will stop at

ALIEN INVASION

Alien Invaders

You are the head of a U.S. Border Patrol crossing who must search incoming trucks for illegal aliens without unduly hindering law-abiding vehicles. Your opponent controls the smuggling operation, hiding aliens in fruit trucks, storage bins and tourists' luggage. Can you seal the border? (Two players)

NUCLEAR WAR GAMES

Never See (We Hope!)

RUSH HOUR DEATHRACE

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But, be forewarned, various horrors of the deep including Scorpins, Sting Rays, Man O' Wars, Orcas and Great White Sharks will try to thwart your plans, as well as your opponent buddy who will stop at

nothing to get back what he believes to be rightfully his. He might resort to any of numerous tactics turning up your regulator hose, puncturing your BC, and making a general nuisance of himself by tangling you up in giant bladder kelp.

Be careful not to surface too quickly, you might get the bends and have to spend precious time in the penalty recompression chamber while your buddy moves on ahead. The first to break the surface with the treasure (and without exploding those fragile lungs from air embolism) wins the game.
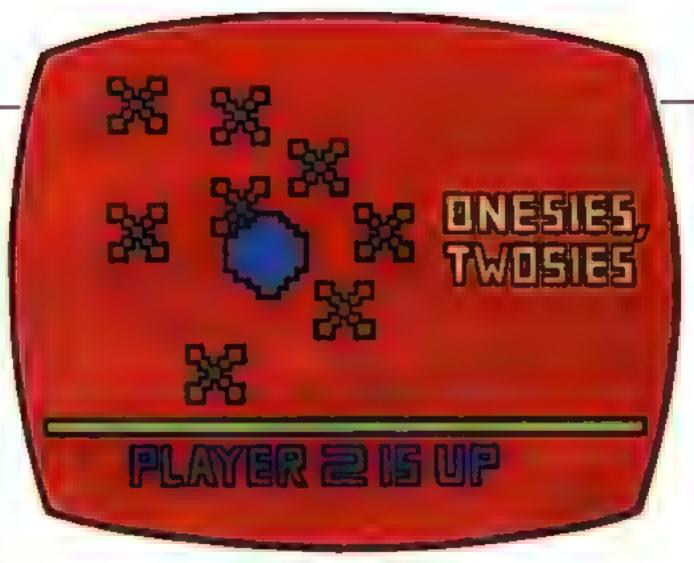
For the loser, there's always the repetitive dive, but the computer will keep track of your surface interval so play it straight and fair. This is not recommended for players suffering from chronic respiratory diseases or poor pulmonary ventilation. This game licensed by the Professional Association of Diving Injuries.

Teacher Terror

It's your first day as pedagogue to an unruly mob of high school students from low income areas. Risking abusive behavior, derisive catcalls, pencil shavings in your tobacco pouch, razor toting females and spitball sharpshooters, you must attempt to teach a lesson in personal hygiene to them. The computer-controlled students will try and get to you—break your spirit any way they can.

Ten points are awarded for each period you survive through. The longer the game goes on, however, the more challenging it becomes. Unlimited scoring possible but not really very likely.

Lynch Mob

You ride out of town with a posse on your trail. You've just killed 4 innocent people. There's a $5,000 reward for your dead torso to be hanging from the highest tree. Today just isn't your day, pard.

Try and outwit your pursuers in a fun-filled videogame romp of hide-and-seek and Hangman all rolled into one!

Brain Transplant

You're racing against the clock to save your patient whose brain is undergoing multiple hemorrhaging. Realistic blood effects! Screams of agony! Anaesthesia is provided for optional use. Brain swells realistically!

If you are able to save the patient a

round of applause and smiles from the faces of the onlooking students follows. Lose him and a malpractice suit develops. (For one or two player/doctors, depending upon the wealth of the patient.)

Porkbarrel

This videogame/board-game hybrid casts one to eight gamers as members of the U.S. House of Representatives. Starting with a modest personal fortune of $250,000 in small used bills, each Congressman attempts to build this nest egg into a cool million.

There are several major means of amassing capital. A player can sell votes, take bribes from foreign governments and—with just a bit of timely wheeling and dealing—make sure that the new interstate highway goes right through the vacant lot you just "happened" to buy yesterday.
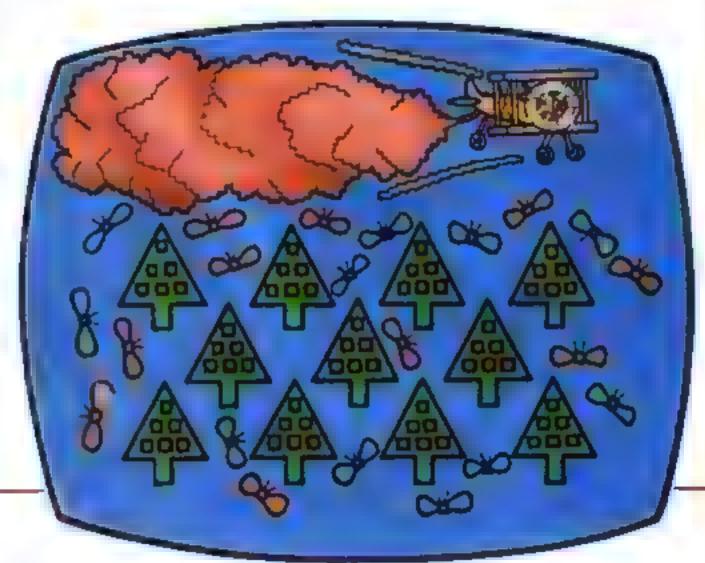
Of course, no Congressman's life is all blue skies and candy. There are Senate investigations to dodge, nosy reporters to bamboozle and even an occasional election to survive. And you'd better watch out for that oh-so-decorative secretary with the hidden video camera!

Porkbarrel also includes a mini-game for young arcaders. **Municipal Porkbarrel** lets players steal money directly from the city treasury.

Coming soon:

Video Horseshoes
JAA Championship Jacks
Potato Yields in Brecklovik, Russia
Video Coin Toss
Natural Disasters
Video Iconoclasm

Building the
LEFT-HANDED JOYSTICK

We live in a throughly right-handed world. If you doubt the truth of this, just ask the nearest southpaw. Everything from the location of door knobs to the orientation of the handles of a common pair of scissors is designed for the convenience of righties.

Videogames have been the same sad story. Until now. By following these
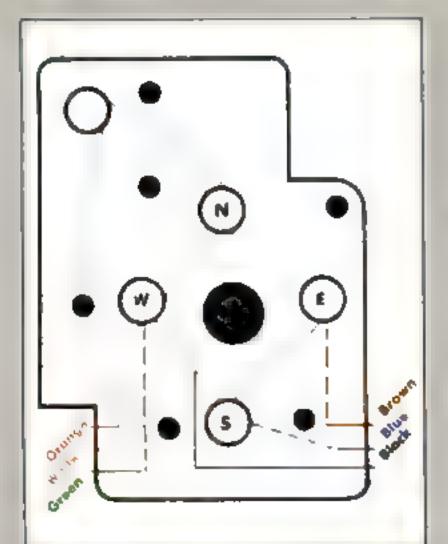
By Cliff Blake

New Hope
for Southpaw
Arcaders

relatively simple steps it's possible to re-wire any garden-variety Atari joystick to meet the requirements of left-handed arcaders.
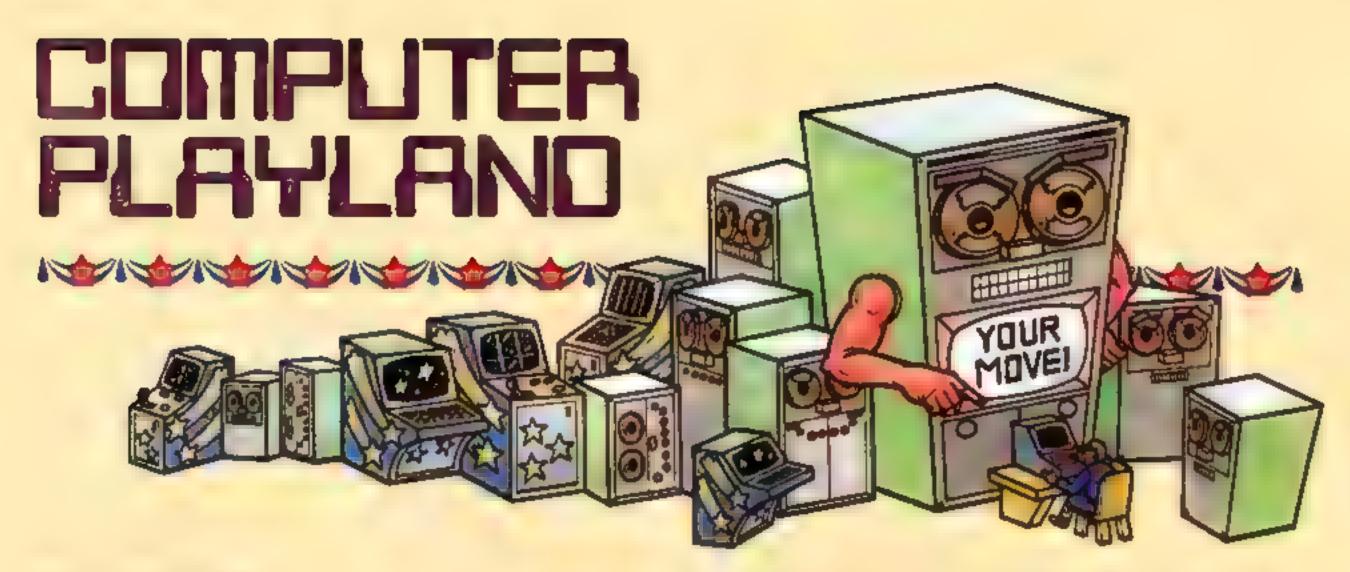
Step One: Turn the joystick upside down and remove the four screws. Put them in a safe place.

Step Two: Separate the base from the top of the stick. Be careful to keep track of the spring located under the firing button.

Step Three: Find a circuit board with six wires attached to it (see figure). In some cases, all the wires are located on one side of the board while others have the wires attached on both sides. The illustration shows both types of circuit boards before modification.

Step Four: For convenience sake we will refer to the four direction switches as

North, South, East and West. Locate the brown wire connected to the East switch and unplug it.

Step Five: Unplug the South (blue) wire and plug it into the East space. Unplug the West (green) wire and plug it into the South space. Unplug the North (white) wire and plug it into the West

COMPUTER PLAYLAND

Star Warrior/Epyx
Atari 400 & 800, 32K   Ever since the first electronic gamer sat down before a video-generated text adventure, imagination soaring into realms of heroism and wizardry the desire has existed to actually see the mystical and action elements taking place out on the screen

The concept of cross-breeding sophisticated adventure programs with their puzzles, mazes and traps with the animated-graphics of the arcade games is not new The problem has essentially been a matter of the personal computer's limited memory. With today s micros limited memory capacity, even the cream of the hybrid action-adventures seems to skimp on one element or the other. Those games with strong storylines suffer with weak visuals, just as the eye-popping spectaculars frequently leave much to be desired in terms of substance.

Within the past year, however, giant strides have been taken toward elevating the adventure to a point where neither element gets short shrift. One of the leaders in this movement has been Automated Simulations/Epyx, whose **Rescue at Rigel** and **Datestones of Ryn** were early classics The game was presented in simple maze form, with the option of character movement via keyboard or joystick

On screen adventurers are directed through the overhead-view corridors, battle monsters, examine treasure chests and rescue imprisoned fellows.

With the advent of the Starquest series, however, graphic adventures have moved into far more sophisticated territory Star Warrior presents the gamer as an on-screen avenger known as a "Fury", paladins who wear highly-advanced and weapon-packed exo-skeleton   Inside this futuristic suit of armor, a player can take mighty Hulk-style leaps, fire blasters and even fly! Here's the scenario: The planet of Fornax has really taken its lumps from the old Stellar Union. After a year of abuse and subjugation, Fornax has had it and calls the Furies, in the person of the intrepid arcader. There are two alternative adventures. The first is diversionary—setting up the military governor of Fornax for assassination—in which gamer overtly raises a ruckus, drawing attention and blowing up anything in sight. The second scenario has you actually hunting down the military governor and delivering a personal serving of heavy retribution

The graphics here are nothing short of stupendous. The on-screen Fury passes over several types of terrain, encounters a wide range of enemy vehicles and installations (both military and civilian. It may be neccessary to actually fly right over the fortress itself to distinguish one from the other. The various installations are rendered in multi colored detail and explosions are depicted as slowly blossoming mushroom clouds

The gamer's weapons include blaster and powergun to knock out small armored assault vehicles—and missiles, which are for use against military forts and installations Missiles are aimed through the use of a numbered multi-directional compass ("1" is north, "2" northeast, etc.). All instructions are input via the keyboard and are broken up into movement combat and special type commands

The on-screen display not only offers an impressive slightly-angled overview of the sector but lists wounds, energy, charges missiles and time in addition to constantly updated status reports on shields, wounds, sensors and the nearest enemy unit

Star Warrior is an adventure for lovers of action-arcade games that will also delight quest-loving arcaders By limiting the scope of the overall task to destruction and assassination it is unnecessary to give the plot line short shrift, while the visual presentation as mentioned, is totally state of the art (Bill Kunkel)

Bug Attack/Cavalier Computer.Apple II/48K disk

This program proves that no one can score a bullseye every time. Cavalier Computer, which has given Apple II owners a couple of fine games in the last year or so, has unfortunately missed the mark with **Bug Attack.**

Clearly modeled on Atari's coin-op, **Centipede,** *Bug Attack* just doesn't offer enough of the features that make *Centipede* such a great game Leaving aside the issue of how close an imitation is too close, it is reasonable to suppose that a designer starting with a terrific game for inspiration should go on to produce at least a good one *Bug Attack* is dull gaming

Centipede's great sound effects and vertical movement are entirely missing Instead, the player is "treated" to the strains of "When Johnny Comes Marching Home", perhaps less than appropriate accompanyment to the action All the arcader has to do is avoid the falling knives and blast the centipede-like creatures that populate the playfield.

The game begins with a colorful title page and a huge explosion Little insectoid critturs move across the top of the field on funny little legs, dropping knives as they scuttle along. Movement by the bugs is slow and tedious, and most action-game fans should have little trouble dispatching them whether controlling the friendly beetles with paddle or keyboard

After the player completes the first wave, the program awards bonus points shifts the color of the surrounding plants and sends in the next wave of attackers.

Not to be totally negative, the graphics are quite excellent and, in particular, the title page blow-up is superb And although the sonic capabilities of the Apple are not too impressive, Cavalier again gets the most out of what's available. Over all *Bug Attack* is a disappointment, especially when compared to past Cavalier successes like *Star Thief* As kids on Dick Clark's "American Bandstand" used to say, "I rate this one a 65." (Leigh Goldstein)

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Attention, Japanese monster mavens, the game you've always wanted is finally here Why just stand on the sidelines and watch Godzilla, Rodan and the rest of the superstar creatures topple Tokyo or bite the Big Apple when you can join the fun?

Designers Jon Freeman and J W Connelley have produced a lighthearted, easy-to-operate program that lets any arcader be the very image of any beast that has ever stalked, slithered, flown or oozed across the silver screen In fact, the disk version tested by **Electronic Games** even lets players custom-design the creature of their foulest dreams

Not only can you select the monster with exactly the destructive ability you most admire, but the menu-driven program will even allow you to choose which of four world capitals—New York Tokyo, San Francisco or Washington, D.C will crumble into rubble in the face of your inhuman wrath A range of five possible objectives for the creature allows precise tailoring of any scenario

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Crush, Crumble and Chomp! is a solitaire strategy game. The player enters commands using one-letter codes in response to an on-screen prompt. Orders cover such diverse activities as grabbing humans, stomping buildings or spewing flaming death at the National Guard. The computer then moves all the puny humans, indicates how fires spread and, in general, orchestrates the activities of the creature-hunters.

Dexterity game fans will find *Crush, Crumble and Chomp!* incredibly frustrating. The creatures are, in general, lumbering behemoths who change direction only with the greatest reluctance. There are also many times when the prey you've stalked so carefully flees just before you can scoop it up for dinner. A monster's lot is not necessarily a happy one.

Although *Crush, Crumble* has a violence quotient that might be objectionable in a realistic, seriously intended game, here it is clearly all in fun. Nevertheless, it is far from a cakewalk for the creature. The monsters are powerful, but the human forces outnumber them so overwhelmingly that the inevitable end of each scenario is the death of the beast. Causing the maximum possible amount of havoc before biting the dust is the goal.

Jon Freeman deserves extra credit for his outstanding job on the instruction book. Automated Simulations often tries to convey the flavor of the program in the rulebook, not always to the benefit of the arcader hoping to learn a new game. Freeman manages to provide all the needed information in clear, organized form while maintaining the humorous tone so vital to *Crush, Crumble*. Automated has also gone out and hired an artist, George Barr, whose charming high-quality illustrations dress up the booklet quite a bit.

Crush, Crumble and Chomp! is offbeat, fascinating and—most important—a solidly constructed strategy game that will be more than just a seldom-played curio in your collection. (Arnie Katz)

Thief/Datamost/Apple II/48K disk
Thief is one of the finest maze-shoot-out programs, a type of game pioneered by **Berserk**, available for home use. In fact, if it could talk, this might be the best arcade game of any type available for this popular computer system.

The goal in *Thief* is to rescue a compatriot who is wounded somewhere on the seventh level. The arcader employs the joystick or paddle to move the on-screen character from room to room, seen in overhead perspective, killing the robots that seek to bar the way.

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"THIEF"
"The damn things nearly killed me."

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and don't fire back at the player. As the difficulty factor increases, the robots develop quick reactions and discharge intense laser fire. Each succeeding level of difficulty is indicated by a change in the color of the walls.

The player begins the game with three men, though an extra can be earned by amassing 2,000 points. A thief is destroyed by the robots' laser beams, collision with a wall or the touch of the unearthly blob. This smiling stalker appears on the screen when the character has stayed too long in one room. It zigzags across the field, destroying all in its path.

This well-animated game plays extremely fast. Many arcaders, this reviewer included, will have trouble getting very far into the third (orange) level of difficulty. The joystick is well integrated into the game, and it is easy to move and fire quite rapidly.

Unless you've got the reflexes of Mandrake the Magician, it will be necessary to take full advantage of every aspect of the game. This most definitely includes the unearthly blob. Since the bouncing face always enters from the left-hand doorway, it is possible to station the thief directly in front of the right hand exit and have the blob disintegrate all the remaining meta men. Be ready to scoot though, because the unearthly blob doesn't mind a thief for dessert after one of its robot feasts.

Since bonus points are awarded for leaving a room swept clean of robots, it is important to combine speed and thoroughness. Shoot as many androids as possible, let the blob have the rest and zip into the adjoining room for the next confrontation.

Thief is a superb game—and highly recommended. (Leigh Goldstien)

**Shooting Gallery/Analog/
Atari 400 & 800/16K cassette**

Starting out as a user's group magazine for owners of the Atari computers, A.N.A.L.O.G. has now jumped into the software-producing market with both feet. Its initial trio of releases range from fair to excellent, but all show promise and a real touch for getting the most from the Atari graphic generators.

Shooting Gallery is a BASIC program with machine language sub-routines. Unhappily, the tape is not loaded via "Cload", but rather by typing "Run C", and will not load when any disk drive or other peripheral is attached to the computer. Since our copy proved an ordeal to load, the ability to transfer the program to disk would be a real boon. It's understandable that the manufacturer does not wish to see its programs pirated, but there is more than a touch of hypocrisy involved. Unless, of course, A.N.A.L.O.G is paying royalties to Sega/Gremlin for **Carnival,** which is the obvious basis of this game.

Shooting Gallery is just that. Owls, bunnies, ducks, etc. appear at the top of three rows and slide across the playfield, moving down a row if they are not hit until they reach the very bottom horizontal column. Players manipulate a six shooter across the bottom of the screen, firing up at the various targets with available bullets symbolically represented in the lower left-hand corner of the display. If the ducks reach all the way to the bottom, they devour several of the player's remaining bullets.

Among the more exotic targets are the clay pipes. They also move across the top of the playfield and must all be eliminated to clear the targets and get a shot at the bonus bear. There are also targets and stars which are good for extra bullets. If a gallery is cleared and bullets remain, they are worth heavy bonus points.

It can therefore be worthwhile to avoid picking off the final few targets, waiting for bonus-bullet items to come along and work up a good supply of ammo. But be watchful! The second the screen starts to fill with ducks, clear the wall as soon as possible.

The graphics are generally pleasing, though much larger than those in its coin-op progenitor. This gives the game a slightly clunky look. The background calliope music, on the other hand, makes a delightful touch, as do the many other sound effects which are handled with real expertise. (Bill Kunkel)

STRATEGY SESSION

By Frank Tetro Jr.

Intellivision Tips from a Champ

Skiing

The most important thing to keep in mind with this cartridge is that the gate positions and even the moguls never change Whether running the slalom course in which the gates are grouped closely together, or the down hill where the poles are more widely spaced, on any slope, once you have memorized the mogul and gate positions they will never vary This provides the gamer with a tremendous advantage by allowing him to begin the turn into a gate before it even appears on the playfield

When turning through a gate, don't ease around or move in a jerky manner Every turn costs time, so work at arcing through the corridor as smoothly as possible The slalom gates turn up very close together and it occasionaly happens that the skier must navigate gates that are parallel but are located at totally opposite sides of the playfield

In this case sweep through the closest gate. then go instantly into a 180° turn back up the slope to a point higher than the second gate and then swing down through it

A similar tactic can be employed when a regular gate is missed That is. just sweep back up the slope and through the gate Remember that a missed gate costs a five second penalty, so any maneuver that would take longer is counter-productive

Jumping moguls is fairly simple so long as the leap is made at the last possible second Anything else will cause the back of the skis to catch the outcropping resulting in a sp

Stay away from the edges of the playfields to avoid trees Whenever possible ski straight down the hill as this is the fastest way to travel I have also found it wise to avoid use of the "swoosh" button intended to sharpen the angle of a turn it generally complicates things and causes a fall

\[for 2 lines at 10 picas]

SKIING

AUTO RACING

BASEBALL

USAC Auto Racing Mattel Intelvision

For some obscure reason, there are two verisons of this program curently in distribution. The difference isn't in the video portion, but in the procedure for steering. The earlier edition used "compass" steering. Pressing the control disc at "12 o'clock" sent the on-screen auto due north, and so forth.

The new technique is "steering wheel" style. Players must visualize themselves actually inside the car, since hitting the disc at "9 o clock" produces a left turn, regardless of the vehicle s position on the road. Keep this in mind when following the strategy.

USAC Auto Racing works best as a one-player game, with the arcader choosing from among a quintet of cars with a variety of positive and negative qualities. As with *Skiing*, memorize the track as quickly as possible. This enables drivers to begin difficult "elbow" turns before they appear on screen. Except on the gentlest curves, never turn gradually. Sharp turns are almost always a safe bet, and always keep a finger poised on the brake, just in case.

Players will occasionally find themselves spinning off the highway onto the grass or even into a pond. When rear wheels are stuck in water, ride the brake heavily when disengaging. Otherwise, the car will take off at normal speed, streak across the road and probably slam into a house on the other side.

All games are clocked, but a crash stops the timers. Most players rush to get back into the race after cracking up. This is unwise. The clock will not restart until the player does. Relax a moment, collect yourself and take a deep breath.

You may even want to take a sip of soda, eat dinner or read a book. The game will not resume until you start it back up, and it's much better to get back on the road with a clear head.

In a two-player race, begin by simply running your opponent off the road. This will aggravate him and may affect his judgement. After a while, he may even decide to fight fire with fire. As your

(NORTH)
UP

(WEST)
LEFT

(EAST)
RIGHT

(SOUTH)
DOWN

Two control modes for AUTO RACING:
(U) original compass type control was used
while (D) new style uses left-right steering

STRAIGHT
AHEAD

TURN
LEFT

TURN
RIGHT

fellow racer gets set to ram you, hit the brake sharply and watch the car fly on past you, off the road and into a ditch.

Since *Auto Racing* features multiple segments of an overall track displayed one section at a time once a player reaches the end of the on screen track, he is awarded a single "ahead" point. If you find yourself with a good lead on your opponent, however, and he looks like he may crash, hit the brake. A crash is worth two points, versus the single one gained by an "ahead".

Major League Baseball Mattel Intelvision

It s the measure of a good sports simulation when the strategy mirrors that of the game on which it is based. The list of hints for improved play on **Major League Baseball** will seem very familiar to mavens of the American Pastime therefore, since virtually every element of the real thing— with the sad exception of fly balls—is duplicated in this excellent videogame version.

On offense, the most important skill is learning how to place hits. Swinging early tends to pull the ball, just as swinging late sends it to the opposite field. Best placement for hits is between second and short, with a hard shot in the hole between short and third a nice secondary target.

Always hit behind the runner to avoid the double play. Since this version of baseball even allows stealing bases, it is important for the human coach to learn just how much of a lead is safe to take. Two steps is perfect. At this distance, if the runner is sent at the very instant that the pitcher raises his arm to signify the

start of his motion, he will always steal second successfully. It is important to realize however, that the pitcher gives no sign when throwing back to first for a pick-off. Therefore, watch for the first baseman to turn black. This indicates that he has been activated in order to get to his base and catch the ball. Jackie Robinson-style leads are generally to be avoided, however, as computer pitchers are notoriously difficult to rattle.

The bunt button seems generally useless, except for a suicide squeeze. With a runner on third, send him home as the pitcher begins his motion, then bunt. The resulting confusion will frequently succeed in disorienting your opposing coach.

Learning defense must begin with acquiring a familiarity with the players and their positions on the keypad's mylar overlay. Some players, especially those with airtight defensive abilities, simply throw nothing but heat—fastballs right down the middle—in order to detract from their fielding preparation. The drawback here lies in the batter's ability to more easily time these pitches and thereby hit them to any field virtually at will. A fastball curving over the outside corner is a much better percentage pitch.

Pitchers can take advantage of the other coach's inclination to steal bases when that problem arises. Throw to first base, drawing the runner back to the bag. Then have the first baseman immediately return the ball so the hurler can pitch home instantly with all possible heat. This will not only catch your opposite number off guard regarding his baserunner, but his batter as well.

In rundowns, keep in mind that the defensive players are always faster than the offensive ones. Run the player toward the next base, pinning him, where he can be either tagged or tossed out at the last instant.

Two major tips: Never throw behind the runner and,

TEMPEST

when a ball gets past the infielder, don't have him chase it. Activate the nearest outfielder. Also, on long throws, always use relay men to get the ball wherever it's going that much faster.

Coin-Op Corner Tempest Atari

Tempest, Atari's first vector graphics system videogame in color is not only the most visually striking coin-op around, but one of the most challenging as well. The scenario places the arcader in command of a blaster with which he must patrol the ramp-like perimeter of a series of geometrically shaped space platforms. These come in two types, flat-edged (with 15 corridors) and rounded (possessing 16 sectors). The player maneuvers his blaster around the perimeter of the platform, defending it against a veritable rogues gallery of space-nasties. These enemy forces materialize at the center of the platform's configuration

TEMPEST

and travel swiftly through the sectors toward the ramp where they either explode or actively pursue the gamer's blaster.

Tempest offers a series of difficulty levels. Avoid the 'novice' level, as the early phases are manageable by even tyro gamers. Also, beginning at any level higher than "novice" earns a hefty 5,000 bonus points after the successful defense of the first platform.

Arcaders have two weapons blasters and super zappers. The latter is strictly for emergency use. The first time it's used, it obliterates all alien life forms on the screen. It can be used only once more on each platform defense at which point it will eliminate one attacker on a priority basis, taking the most dangerous first. The super zapper is recharged after each defense, and the blaster has an infinite ammo supply.

On the initial two levels, the only serious attackers are the flippers, claw-like objects that skitter along the ramp in search of the blaster. Should they seize it they leap with it into the vortex, leaving the gamer down a "life." From the third level on, tankers—which burst into a pair of flippers when hit—join in the melee. Once a flipper gains the ramp it can be destroyed only when moving from sector to sector. With their claw in the air, they are vulnerable. Spikers also make their appearance at this point—bright blue curls that build up deadly spikes, capable of impaling blasters during the jump from ramp to ramp. Spikes must be whittled down piece by piece.

Fuseballs show up at level 11, and pulsars appear at 17. Like flippers, the deadly pulsars stalk the blaster.

Strategy up to ramp 33 is simplicity itself: Stand still. Players almost invariably spin wildly around the ramp, firing blindly. This is a loser's strategy putting all probability against the player, because there are more attack zones than can be patrolled even by automatic fire. Instead, find a

Left-Handed

space Finally, take the East (brown) wire which you previously disconnected and plug it into the North space
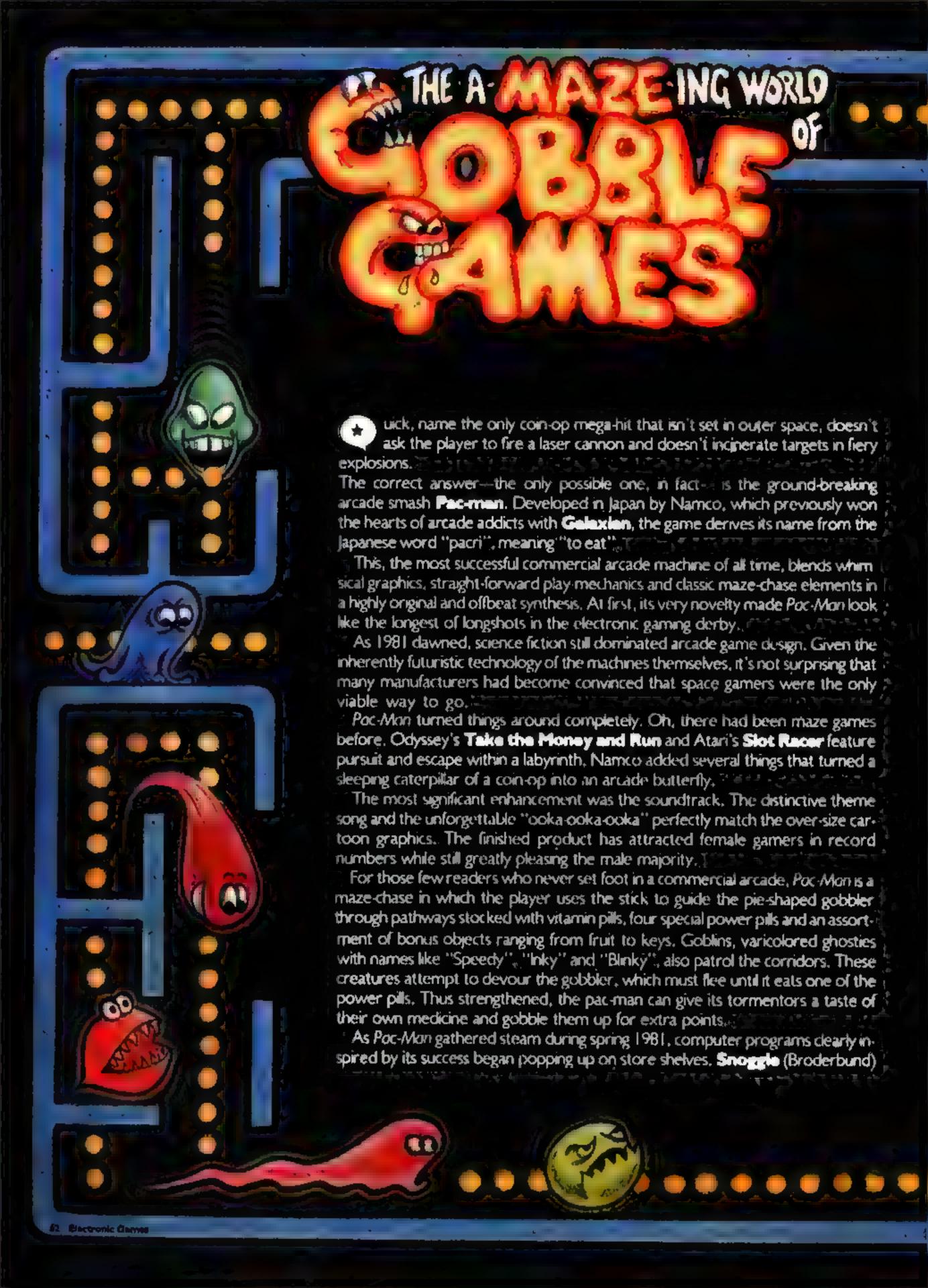
Step Six: Replace the board in the controller not forgetting that pesky spring under the firing button insert the four screws and you've got a genuine left-handed joystick with the firing button located in the upper right hand corner

As easy as this procedure is, some people would rather have it done for them My company, Screen Sonics, St Louis Mo will re-wire your stick for $5, including postage and handling Or we'll be glad to sell you a new Atari left handed joystick for $15 postage paid

So right-handers beware here come the left handed arcaders! G

THE A·MAZE·ING WORLD OF GOBBLE GAMES

Quick, name the only coin-op mega-hit that isn't set in outer space, doesn't ask the player to fire a laser cannon and doesn't incinerate targets in fiery explosions.

The correct answer—the only possible one, in fact—is the ground-breaking arcade smash **Pac-man**. Developed in Japan by Namco, which previously won the hearts of arcade addicts with **Galaxian**, the game derives its name from the Japanese word "pacri", meaning "to eat".

This, the most successful commercial arcade machine of all time, blends whimsical graphics, straight-forward play-mechanics and classic maze-chase elements in a highly original and offbeat synthesis. At first, its very novelty made *Pac-Man* look like the longest of longshots in the electronic gaming derby.

As 1981 dawned, science fiction still dominated arcade game design. Given the inherently futuristic technology of the machines themselves, it's not surprising that many manufacturers had become convinced that space gamers were the only viable way to go.

Pac-Man turned things around completely. Oh, there had been maze games before. Odyssey's **Take the Money and Run** and Atari's **Slot Racer** feature pursuit and escape within a labyrinth. Namco added several things that turned a sleeping caterpillar of a coin-op into an arcade butterfly.

The most significant enhancement was the soundtrack. The distinctive theme song and the unforgettable "ooka-ooka-ooka" perfectly match the over-size cartoon graphics. The finished product has attracted female gamers in record numbers while still greatly pleasing the male majority.

For those few readers who never set foot in a commercial arcade, *Pac-Man* is a maze-chase in which the player uses the stick to guide the pie-shaped gobbler through pathways stocked with vitamin pills, four special power pills and an assortment of bonus objects ranging from fruit to keys. Goblins, varicolored ghosties with names like "Speedy", "Inky" and "Blinky", also patrol the corridors. These creatures attempt to devour the gobbler, which must flee until it eats one of the power pills. Thus strengthened, the pac-man can give its tormentors a taste of their own medicine and gobble them up for extra points.

As *Pac-Man* gathered steam during spring 1981, computer programs clearly inspired by its success began popping up on store shelves. **Snoggle** (Broderbund)

THE A-MAZE-ING WORLD OF GOBBLE GAMES

A GUIDE TO MAZE-CHASE GAMES

By Arnie Katz and Bill Kunkel

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As Pac-Man gathered steam during spring 1981, computer programs clearly inspired by its success began popping up on store shelves. **Snoggle** (Broderbund) gave Apple II partisans a chance to get in on the action, while On-Line offered **Gobbler** for the Apple and **Jawbreaker** for the Atari 400/800.

Jawbreaker departs from other computer gobble games in both the quality and design of its audio-visual facets. Using a jaunt through a candy store as its main theme, Jawbreaker has players guide a set of chattering choppers along aisles dotted with "wifesaver" candies.

By last summer, Pac-Man had exploded on the national consciousness. Arcades held tournaments, a couple of singers from Atlanta recorded "Pac-Man Fever" and t-shirts bearing the logo, gobbler or one of the goblins seemed to be everywhere. The record has now sold well over 100,000 copies and has inspired an entire album of rock tunes with a gaming emphasis.

Odyssey had the honor of releasing the first gobble cartridge for the programmable videogame market, **K.C. Munchkin**. Although this game is significantly different than Pac-Man, it boasts cute graphics and rapid play mechanics of its own.

Atari scooped its competitors, however, by buying home rights to Pac-Man. This purchase touched off several extremely complex court cases in which the Sunnyvale, Ca., manufacturer attempted to banish Jawbreaker and Munchkin. By the time you're holding this issue in your hands, Atari's Pac-Man cartridge for the VCS will have become the best selling home game of all time. The company had a backlog of 1.5 million orders before the first copy went into distribution.

Atari will follow up this initial release with versions of Pac-Man for both the 400/800 computer system and its soon-to-be-released Super-Game.

Meanwhile, Midway, which brought Pac-Man to American amusement centers, is capitalizing on the game's success in a couple of ways. Kick-Man features the familiar gobbler in a cameo appearance, while **Ms Pac-Man** is intended as the manufacturer's "thank you" to the legion of female gamers who made Pac-Man such a cultural phenomenon.

This is one electronic game that isn't likely to fade away after its current popularity begins to wear thin. Pac-Man has already influenced a whole second-generation of maze-chase contests, including **Mouse Trap** and **Crush Roller** from Exidy, **Make Trax** by Williams, **Lock 'n Chase** from Taito and **Round-up**, a western-style coin-op by Centuri. Other designers are hard at work on games that utilize one or more elements derived from Pac-Man in new and unusual ways. Even Coleco will enter the picture with a tabletop version.

So one way or another, the gobbler will live on, contentedly chomping those vitamins for years to come. G

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Looking for people who share your interest in arcading?

By Willy Richardson

INTELLIVISION INTELLIGENT TELEVISION

INTELLIVISION NEWS

GAME CLUB

The Quarterly Newsletter of the Intellivision Game Club

SAMPLE DEALER ISSUE

TOURNAMENT DRAWS 1000S DALLAS

ACTIVISIONS

WELCOME TO THE FIRST ISSUE OF ACTIVISION

Many of these organizations, particularly the videogame clubs, offer newsletters or magazines packed with gaming info.

Birds of a feather flock together, as the old saw goes, and it's certainly been true in the case of hobbyists. Whether it's stamp collectors, model railroaders or electronic gamers, everybody enjoys sharing their interest with kindred spirits, talking about favorite items, comparing successes and failures.

It was only a matter of time, therefore, before electronic gaming clubs began sprouting like mushrooms. Most gaming clubs are of one of two types: the users group and the fan club.

Users Unite!

The founders of the early game clubs were great believers in the adage "If you want something done right, do it yourself." The first users group formed around the Bally Professional Arcade. After Bally decided to dump the home programmable supersystem they'd developed, owners found themselves adrift. Except for the few existing game cartridges, there was no software for the BPA and little promise of any developing down the line. So fans took matters into their own hands, using the Bally BASIC cartridge (which has an input slot that allows programs to be recorded onto audio casette tape). A pair of clubs, *Cursor* and the *Arcadians* began publishing newsletters, programs and even ready-to-run games on tape in Bally BASIC.

Both clubs are still going strong (though *Cursor* is now known as *The Bally Express*), though Astrovision's purchase of the Professional Arcade and release of new software has given the unit sunnier prospects. Astrovision has even lent a helping hand to the users by introducing a new, improved form of BASIC modeled on Palo Alto Tiny BASIC that allows the creation of even more intricate game software.

The storyline is similar in the world of personal computers. The original TRS-80, possessing neither sound nor color, was not exactly the ideal system for turning out exciting games, and the initial Radio Shack releases were generally disappointing. So, once again, gamers took matters into their own hands. A group of TRS-80 programming wizards formed *Big Five Software* to produce games on a level owners had never seen before.

The Apple situation was, at that time, better and worse. Though Apple itself was producing no game software, and despite the system's audio limitations (sound is generated by a small, internal speaker), the computer seemed perfectly made for gaming. Its bright colors and smooth action soon inspired independent programmers across the nation to form users groups, and a legion of cottage-level software companies sprang up almost overnight.

Atari also suffered from a lack of software at the time of its release. Seeing the problem, the manufacturer itself began generating interest by fostering the creation of users groups and providing programming instruction for designers. APEX, the Atari Program Exchange, was established as a clearing house for the fine software created by independent users.

Videogame Clubhouses

The most recent trend in the gaming club movement has been the initiation of company-run clubs for system owners. Atari VCS fans can get information on both home and coin-op games from George Dakota's *Atari Age* newsletter, published for members of the *Atari Game Club*. A similar newsletter is being turned out by Mattel for its new Intellivision Game Club.

Activision aces can get all the latest news, as well as the top scores on ACTV games from around the country via the outfit's color publication, *Activisions*. *Odyssey Adventure*, meanwhile, is a gorgeous, full-color magazine for O² mavens

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CLUBS FOR GAMERS

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that not only gives news and behind-the-scenes features, but actually runs instructions and playing boards for super games that involve several different O² programs at various phases of play.

So whether you own a programmable system, a computer or are simply thinking about it, there are plenty of newsletters and organizations out there waiting to help.

Computer Clubs

If you're one of the growing legion of microcomputer owners, the various local clubs and user groups may have a lot to offer.

Not only do such organizations provide lots of good fellowship, but they are often a source for amateur designed game programs that sometimes put the work of the professionals to shame. Sometimes, you can even get to test games *before* you spend hard earned cash.

Odyssey Adventure (Ceco Publishing Co., 30400 Van Dyke, Warren, MI 48093)

Atari Game Club (P.O. Box AGC, Half Moon Bay, CA 94019)

KABOOM! PATCH

FREEWAY PATCH

ICE HOCKEY PATCH

SKIING PATCH

LASER BLAST PATCH & BARS

Where to Write:
Arcadians (Robert Faris, 3626 Morrie Dr., San Jose, CA 95127)
Bally Express (Fred Cornett, P.O. Box 1763, Big Bear Lake, CA 92315)
Activisions (Activision Inc., 3255 2 Scott Blvd., Santa Clara, CA 95051)

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SLAM DUNK!

Sizing Up Electronic Basketball

Basketball fans are definitely the orphans of the electronic gaming world. Despite the overwhelming worldwide popularity of roundball as both a spectator and participation sport, it has only rarely been the subject of a videogame cartridge or microcomputer simulation.

In fact, there are far more videogames covering such sports as auto racing, soccer and skiing than there are programs which deal with basketball. At the present time, Odyssey, Atari and Mattel all produce hoop cartridges for their programmable videogame machines, and Atari also makes a ROM cart for its 400/800 computers. Neither Astrovision nor Zircon offer basketball games for, respectively, the Astro Professional Arcade or the Channel F II

The situation on the coin-op front is even more disappointing. Back when electro-mechanical devices dominated the commercial fun centers, there were actually several basketball machines, most of them distantly related to the long-lived home game Bas-ket. Those games vanished when electronic devices took over their floorspace in the arcades, and only Atari has manufactured a basketball coin-op to fill the void.

Is there some vast and sinister conspiracy against basketball-loving gamers? Do cloaked and hooded men gather in dark places for secret ceremonies involving spitting on the grave of Dr. Naismith? Can we blame it all on the football fans?

Thankfully, the answer to all three questions is, "No." The reason why there aren't more electronic basketball games isn't nearly that mysterious. The problem is that the qualities that make the sport so popular—non-stop action, active defense and precisely patterned passing—have proven the hardest things to translate into game terms. Any program that doesn't incorporate such key aspects, at least to some extent, isn't going to have the "feel" of the real sport. So it's understandable that software companies have shied away from introducing programs that most arcaders would probably consider unsatisfactory. Hopefully, as the capabilities of the hardware—and the expertise of the designer/programmers—increase, basketball games will become more feasible and, ultimately, more numerous.
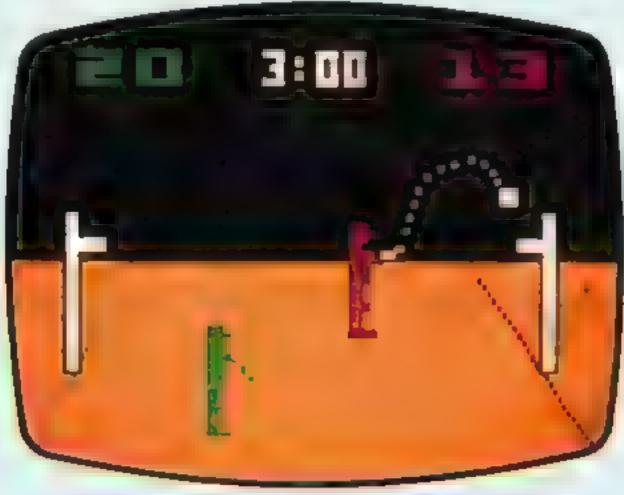
Odyssey was the first company to risk producing a hoop cartridge, which it introduced to the arcading public in 1978. Although its **Basketball** had some good points, it also possessed a few glaring deficiencies.

Admittedly, those were pioneering days for electronic arcading. Many cartridges that inspire only a polite yawn today were considered pretty hot stuff at the time. Still, *Basketball* was rather nondescript even back then (the cartridge is a decent value, however, since it also includes **Bowling**.)

Odyssey *Basketball* presents two human coaches with a side view of the court with one on-screen athlete per team, colored red and blue for easy identification. The ball is automatically dropped from the top center of the playfield and becomes the property of the first man to touch it. The

ATARI BASKETBALL (400/800)

ATARI BASKETBALL (VCS)

player on offense has eight seconds to shoot by pressing the action button or the opponent takes over possession. There's no control over the force behind the shot or the ball's arc of flight toward the basket. The defender can steal the ball by touching it just as the offense hoists one up.

The game does contain one major advance over the Pong-type programs on which it appears to be based. The court floor is really an electronic gravity field that makes the ball bounce realistically.

The relative merits of Bill Russell and Wilt Chamberlain have fueled endless arguments among hoop fans, but there's no similar debate about which game designer has contributed the most to electronic basketball. Activision's Alan Miller, then working at Atari, invented the first trapezoidal videogame play field for that company's **Basketball** cartridge.
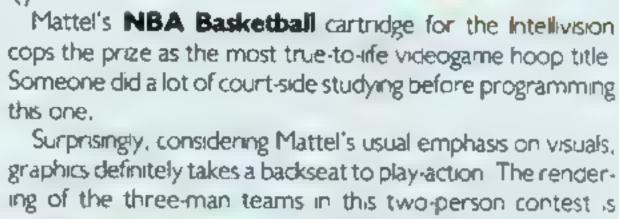
This innovation, which has also come in handy in simulating other sports like tennis and soccer, gives the court width as well as length and height. That introduces the possibility of positional play and a passing game, though Atari *Basketball*, like the Odyssey cartridge of the same title, is strictly one-on-one action.

Hitting the "game reset" switch causes the ball to be tossed into the air between the two opposing players. The first one to reach the ball after the opening tap can use the joystick to dribble into position for a good shot. The defender can try to steal by aligning the on-screen character's feet with those of the ball handler and swiping the ball between bounces.

The player on offense has some control over the shooting phase. Pressing the action button causes the player to stop dribbling and hold the ball. If the arcader releases the button while the player has the ball over his head, the result is a long arcing shot. If the ball is launched while the player's holding the ball low and in front, it will be a softer shot. The defender doesn't have to just stand around waiting while the guy with the ball takes aim. When the coach pushes the button, the man guarding the shooter will leap into the air and attempt to block.

Atari *Basketball* is also one of the few sports cartridges that can be played solitaire. The computer-directed team's defense varies according to the closeness of the score. If the human-coached side falls behind, the computerized opponent takes a vacation on defense and roams the court aimlessly. But let the arcader's time tie or even take the lead, and the computer-directed guard becomes a sticky-fingered shadow who battles the ballhandler every step of the way to the basket.

Mattel's **NBA Basketball** cartridge for the Intellivision cops the prize as the most true-to-life videogame hoop title. Someone did a lot of court-side studying before programming this one.

Surprisingly, considering Mattel's usual emphasis on visuals, graphics definitely takes a backseat to play-action. The rendering of the three-man teams in this two-person contest is blocky and utilitarian, but the design features the most realistic and comprehensive passing game ever created for fans of electronic roundball.

When the team goes on the offense, the human coach directs the hoopster with the ball, while the computer moves his two cohorts in an appropriate manner. The mylar controller overlays divide the court into nine zones. To pass, the coach with the ball pushes the desired section of the court on the overlay, and the ball leaves the on-screen athlete's hands and heads for the appointed spot. The toss will be caught by one of the other players on the offensive team, assuming the computer can get one there in time. Otherwise, it becomes a loose ball and is likely to sail out of bounds. It's also possible that a man from the rival team will intercept the heave and take possession.

Basketball for the Atari 400/800 computer is essentially a dressed-up cousin of the VCS original. The on-screen characters are well-drawn and smoothly animated, and it's possible to execute some snappy passes.

This is the most versatile of all the hoop cartridges. It can be played by one or two arcaders against computer opposition or head-to-head with either one- or two-man teams. The computer generates enough defense to keep the humans honest, which means that it plays like the old Boston Celtics in the closing minutes of tight games.

Passing is very tricky. The action buttons on the joysticks controlling both the player throwing the ball and the one catching it must be pressed just about simultaneously for the maneuver to take place. When two gamers play against the computer (or each team is commanded by two human coaches), shouts of "Pass! Pass!" periodically fill the air as arcaders try to coordinate the button-pressing.

Since this is a rather sparse crop of games, it's fortunate that prospects for additional ones, especially in the computer field, look bright. A strategy-oriented program and, just possibly, a statistical replay one could be available by the opening tap of the 1982-1983 NBA season if manufacturers' current plans materialize. With any luck, fans of electronic basketball will soon feel less ignored than is the case today. Ⓖ

INTELLIVISION BASKETBALL

suitable position there's a special spot for each ramp—and stay there. Hit the flippers as they flip from the ramp sector adjoining the blaster and wipe out anything that appears in the chosen zone.

From level 33 on the strategy is more sophisticated. Fuseball tankers, distinguished from flipper tankers by the wavy line inside, make their long dreaded bow. These can be eliminated while moving right to left or left to right away from the ramp. Also remember to get out of the way after hitting a fuseball tanker or a pair of extremely hostile fuseballs will be picking their teeth with the blaster's remains.

Tempest offers a wide range of variable skill levels, but the higher ones can only be reached by merit. In other words, a player must attain level 45 during play in order to begin the following game at that level.

So keep a steady hand, a ready digit on the super zapper, and get ready to blow away a *Tempest!*

Bill Heineman

How High is High?

The national high score on Atari's Space Invaders cartridge can't begin to compare to the high score on a coin-op Space Invaders. A list of high scores on coin-on machines and TV set cartridges would be very interesting to the gaming readers.

Matt Brass
Helena, Mont.

Ed: You make a very good point, Matt. Be sure to see the special announcement in this month's "Electronic Games Hotline" section about our new National Arcade Scoreboard. We'll be starting with home games, but we hope to include coin-ops, too, once we work out a satisfactory system for verifying the scores.

PROGRAMMABLE PARADE

By Arnie Katz and
Bill Kunkel

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Fly High—and Low—with Barnstorming

Barnstorming/Activision/for VCS

Activision, always known for its original game ideas and super graphics, obviously found yet another designer to carry on the tradition. **Barnstorming** is the creation of newcomer Steve Cartwright, and his work shows that he clearly understands the elements that make Activision games work.

If at first, *Barnstorming* seems like a visually-impressive bit of fluff, stick with it a bit, learn the tricks and nuances of play and you'll be well rewarded for your time. The game begins with a vintage, air circus bi-plane, parked on a runway. In the foreground is a continuous span of fence which helps create the program's sense of movement.

Gamers "take off" by hitting the action button after choosing one of four flying options. The novice level, "Hedge Hopper" is a fixed course with 10 barns; "Crop Duster" and "Stunt Pilot" are both fixed courses (though different from one another) with 15 barns; and the "Flying Ace" level requires the player to deal with 25 barns on a randomly generated course.

The goal of *Barnstorming* is to fly a bucket of bolts over windmills and through the barns that dot the landscape (with the difficulty switch "A", video aces must get their craft nearly to the ground

before it can get through a barn). Skipping a barn just adds another down the road. The idea, of course, is to accomplish the goal in the shortest time possible.

Tyro Barnstomers are advised to play their first few games like so: hit the action button to start the engine, but immediately thereafter remove pressure from that button, which acts as an accelerator. This provides an opportunity to get the feel of the game without being harassed by the ubiquitous flocks of geese that show up just as soon as the bi-plane picks up speed. The geese are more of an annoyance than a true danger, but prove to be frustating obstacles nonetheless.

Bally Pin/Astrovis on/ Astro Professional Arcade

Imagine a videogame version of pinball with all the color, action, and excitement of the real thing. It would offer two distinctive playfields, two sets of flippers, reset spin-paddle, thumper and back bumpers.

Sound like a pipe dream? It's not. Bob Ogdon's design for this pinball simulation is so skillfully constructed that even those staunch videogame chauvinists who wouldn't be caught dead near a flipper machine will soon find themselves

transfixed by the realistic play, vivid colors and inspired play mechanics. Arcaders hold two of the Astro Arcade pistol-grip controllers. Using the right thumb, the ball awaiting ejection from the chamber is sent gyrating onto the playfield through a special, spinning-reset paddle. The trigger on the right-hand controller operates the two flippers on the right side of the center gutter; the left controller's trigger operates the pair of flippers on the left. This "two gun" effect is the first succesful use of programmable videogame controllers in a pinball simulation, effectively recreating the sense of smashing away at flipper buttons on the real thing.

Spacechase/Games by Apollo/ Atari VCS

This is the second release from one of the new independent software suppliers catering to the Atari VCS system The Richardson, Tex. -based outfit bought its first game, titled

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Skeet Shoot, from an independent source, and it is a less than satisfying target cartridge that could probably use some additional fine-tuning.

Spacechase, Apollo's first "in house" creation, is a completely different story. It's an exciting science fiction shooting gallery that rewards skillful players with a succession of new and ever more deadly flights of alien invaders as the contest proceeds.

The playfield represents a view of Earth from a point in space where the planet fills the bottom of the cockpit's front view screen and the curve of the horizon and the stars blinking against the void com-

prise the upper view

Gamers choose from among 24 variations—12 day and 12 night missions. The pilot uses a joystick to control a laser cannon at the bottom of the screen. As in standard alien invasion contests, the cannon can be shifted freely left or right This weapon, however, can also move vertically to a certain degree, *a la* **Centipede**. Once play is initiated, four tiny dots, two from each side of the screen, zip to the center of the playfield and
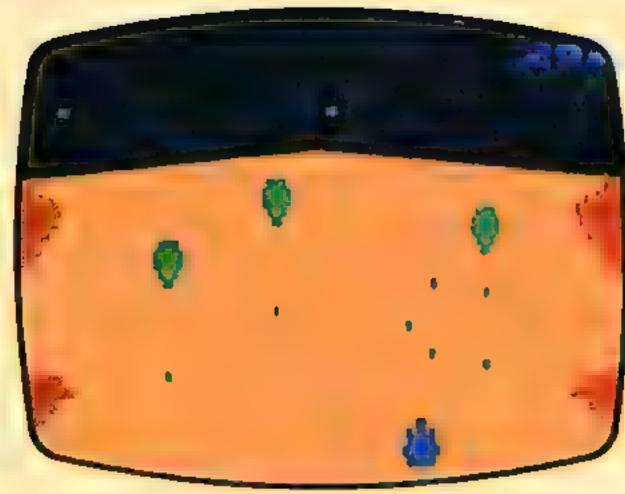
blossom into deadly alien warships. Owing to an Apollo programming innovation, objects on the same horizontal line are able to move in different, random directions, resulting in a wild, unpredictable swirling of invaders across the playfield.

The aliens fire two types of missiles—limited and unlimited HSM's (Heat-Seeking-Missiles). The latter type is the most challenging element of the game These buggers can change direction in mid-flight in order to pursue their prey. The arcader's sole defense against the HSM's is to destroy them in the air.

BARNSTORMING

SPACECHASE

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Horse Racing Mattel Intellivision

This cartridge is a sure bet to please fanciers of the sport of kings. No other program, not even for microcomputers offers this particular blend of luck and skill. Making a mint in **Horse Racing** requires a mixture of riding ability and handicapping savvy.

The computer generates a field of eight steeds for a 10-race card. Four nags at time compete over varying distances under a range of track conditions from fast to mud. Since each horse maintains characteristic strength and endurance over the entire series of events, home handicappers can use past performance as a guide to potential finish. In other

words, a sprinter that beat an endurance horse at a given distance is likely to do so again if the race were rerun under the same conditions though the flyer might have a better chance at, say 10 furlongs.

The other important element in *Horse Racing* is, as might be expected, the running of the race. While two human jockeys ride horses using the hand controllers to input commands, the computer takes charge of the other two equine contenders.

A little coaxing at the beginning of a race will produce some early speed, and a touch of the whip down the stretch can work miracles. There is a catch, unfortunately. Over-using either can cause your charger to stumble across the finish line what seems like an eternity after the rest of the field.

After each race, the winning time and the official order of finish are flashed on the tote board. The computer then determines the winners and losers, paying off bets as required. The participant with the largest winnings at the end of the 10-race series is acclaimed the victor.

In our opinion this is the best of all the gambling cartridges available for home

videogame systems. Some of the card games are undeniably clever, but few are as involving for the players as this trip to the electronic track.

Conquest of the World/
Odyssey/Odyssey²

Two to six players, each representing the leadership of one of the game's 43 countries, strive to make their home and the most powerful nation on the face of the earth. This goal is accomplished by accumulating more power base units (PBJs) than any other country.

The diplomatic infighting takes place on a special mapboard provided with the game. When open hostilities erupt, action switches to the video screen. Each country musters land, sea and air com

bat units, which square off in a series of one-on-one showdowns. A player can employ any of his three armed services with the only restriction being that once a specific type of military force has failed in one engagement of a war, it cannot be used again in the same war.

This is only the sketchiest outline of the play-system used in *Conquest of the World*. Designers Ed and Linda Averett and Steve Lehner have created a game of consumate scope and subtlety. It will take at least several games for most would-be conquerors to fully perceive all the complex interrelationships built into this boardgame/videogame hybrid.

With a game as complicated as this one, a good set of instructions is mandatory. *Conquest of the World* is well provided for in this respect, since the profusely illustrated rule book leads participants through the routine of play one small step at a time without ever losing sight of the overall objective.
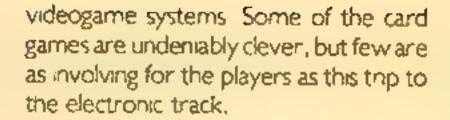
Few videogame cartridges are perfect, and opportunities to go wrong are far more numerous in something with the sweep of *Conquest of the World* than would be the case with the typical maze or invasion game. Remarkably, there are very few such miscues. The only obvious one is requiring the submarine to surface periodically without having the program force it to do so. This encourages participants caught up in the heat of a conflict to shade legalities. It could spark an occa-

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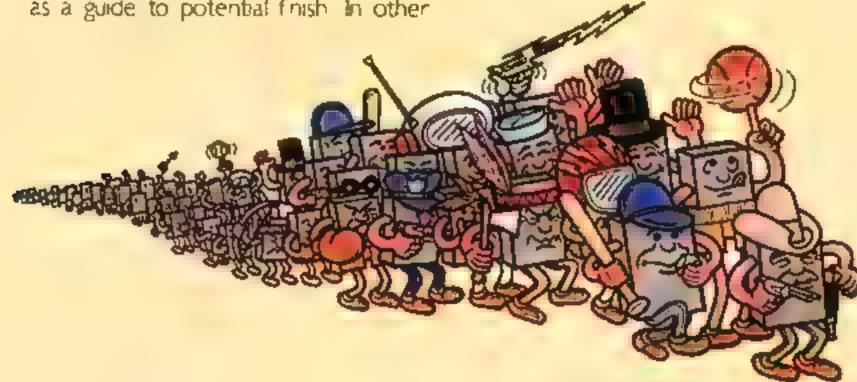
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sional argument over whether a sub has stayed under water too long.

Conquest of the World is a triumph of stunning proportions. It proves once again that programmable videogame systems have capabilities that still remain to be tapped.

Steeplechase/Sears/Tele-Arcade or Atari VCS

One of two Atari-generated game cartridges—the other is **Stellar Track**—available exclusively through Sears, **Steeplechase** makes a pleasant, if modest, addition to the VCS library.

Up to four can play this race contest simultaneously, using paddle controllers to

HORSERACING

CONQUEST OF THE WORLD

"ride" a horse down one of the four horizontal y-stacked tracks. Gamers choose a horse by hitting the action button, which makes the appropriate animal rise to its feet.

Once the gun sounds the horses bolt from the starting gate and thunder down the race course. Players can not do anything about their nag's speed, which the computer mandates. The gamer's sole function is to jump the horse over a series of variously-sized hurdles that turn up at regular intervals during the race.

This task is not as easy to perform as you might think. The timing of the jump, for instance, must be absolutely perfect. Leave the ground too early and the

steed will crash ignominiously into the back end of the obstacle, jump too late and the stallion's legs will crash into the front of the hurdles.

Once the timing has been mastered, players can improve on their clocking through judicious use of the rolling "height" bar. At the far right end of each racing lane is a small black lever. By turning the paddle controller, this bar can be raised or lowered, determining the length of the horse's jump. Novices are advised to leave the lever at maximum height, but the more time a horse spends in the air, the more time he loses to the horses capable of leaping only as far as necessary. Developing a sense for how high a jump must be to traverse a particular hurdle can only be achieved through practice.
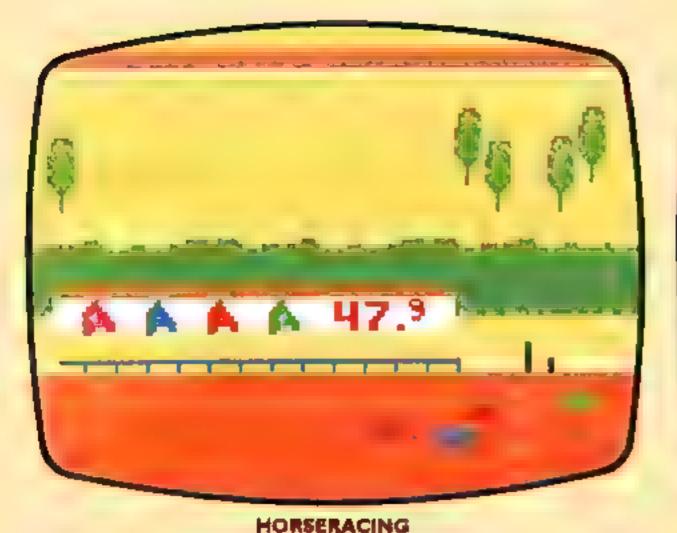
The graphics are more than serviceable with nice use of colors and sound effects that add to the game's overall enjoyment. Steeplechase is not the sort of videogame that can be expected to top the popularity charts, but it isn't really supposed to. It's an interesting, professionally-produced game program that offers a nice change of pace for VCS owners when they get tired of obliterating aliens and asteroids. Steeplechase is a pleasant, if unsensational, videogame experience.

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STAND ALONE SCENE

By Joyce Worley

Dungeons & Dragons
Mattel Electronics

Players of **Dungeons & Dragons,** the fantasy role-assumption game from bought the rights

TSR, Inc., were pleased if somewhat surprised when Mattel announced it had travel in a search for treasure, while avoiding the dragon. Any romance and adventure the player can bring to the game will enhance it, but D&D itself will do little to feed the fires of wonder kind-

led by the original role-playing version, vides sound clues to help find walls and warn of the dragon's approach.

After turning on the unit, you will hear the Warrior #1 tune. Select a difficulty level for the first adventurer, and choose a secret room. This will serve as sanc

to produce an electronic D&D board-game

Dungeons and Dragons revolutionized the gaming field by introducing unusual and innovative concepts. Fantasy role playing, as a result of its growth as a hobby, has had a great impact on the gaming habits of players everywhere. There was wide-spread speculation about how Mattel would translate the largely mental D&D to a board and how much of the flavor of the original game would survive the transition.

Unfortunately, Mattel's tabletop device loses much of the charm of the original game. There is no personification of the player characters and little glamor or mystery in the situation. Supposedly a participant could infuse play with elements of his or her own imagination, yet the game itself is a rather matter-of-fact labyrinth through which warriors

Still, *Dungeons & Dragons* should be judged on its merits as a computer labyrinth once the purchaser has recovered from the disappointment of not finding a computer version of the classic game. The unit itself is attractive and comes with a set of handsome pieces. The electronic board is touch-sensitive, and the computer within it will generate a new labyrinth with invisible walls each time a new game is begun.

The pieces are provided to help keep track of players' movements and the locations of walls, the dragon, and the treasure. The game may be played either solitaire against the computer, or by two humans and the computer.

In addition to generating the labyrinth, the console continuously calculates the players' strengths, monitors the movements and the locations of all players plus the dragon and the treasure, and pro-

tuary and home square for the character. Then press the "next turn" key, and hear the Warrior #2 tune. The second player, if any, then selects his game level and secret room. Hitting the "next turn" key twice informs the computer that the second player has completed his turn.

The microprocessor then picks a hidden treasure room, at least three squares away from any secret room. The random labyrinth is generated, and the quest begins.

Each warrior moves a maximum of eight squares per turn. Each square traversed must be pressed until a beep is heard. Movement is up, down, left or right, but never diagonal. The unit emits Wall Sound when you bump into a wall, and you must then back up one square and stop. If you attempt to skip over squares, or move through a wall, it sets

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Mattel Electronics

Players of **Dungeons & Dragons,** the fantasy role-assumption game from bought the rights TSR, Inc., were pleased if somewhat surprised when Mattel announced it had to produce an electronic D&D board-game.

Dungeons and Dragons revolutionized the gaming field by introducing unusual and innovative concepts. Fantasy role-playing, as a result of its growth as a hobby, has had a great impact on the gaming habits of players everywhere. There was wide-spread speculation about how Mattel would translate the largely mental D&D to a board, and how much of the flavor of the original game would survive the transition.

Unfortunately, Mattel's tabletop device loses much of the charm of the original game. There is no personification of the player-characters and little glamor or mystery in the situation. Supposedly a participant could infuse play with elements of his or her own imagination, yet the game itself is a rather matter-of-fact labyrinth through which warriors led by the original role-playing version, vides sound clues to help find walls and warn of the dragon's approach.

After turning on the unit, you will hear the Warrior #1 tune. Select a difficulty level for the first adventurer, and choose a secret room. This will serve as sanc-

Still, *Dungeons & Dragons* should be judged on its merits as a computer labyrinth once the purchaser has recovered from the disappointment of not finding a computer version of the classic game. The unit itself is attractive and comes with a set of handsome pieces. The electronic board is touch-sensitive, and the computer within it will generate a new labyrinth with invisible walls each time a new game is begun.

The pieces are provided to help keep track of players' movements and the locations of walls, the dragon, and the treasure. The game may be played either solitaire against the computer, or by two humans and the computer.

In addition to generating the labyrinth, the console continuously calculates the players' strengths, monitors the movements and the locations of all players plus the dragon and the treasure, and pro-tuary and home square for the character. Then press the "next turn" key, and hear the Warrior #2 tune. The second player, if any, then selects his game level and secret room. Hitting the "next turn" key twice informs the computer that the second player has completed his turn.

The microprocessor then picks a hidden treasure room, at least three squares away from any secret room. The random labyrinth is generated, and the quest begins.

Each warrior moves a maximum of eight squares per turn. Each square traversed must be pressed until a beep is heard. Movement is up, down, left or right, but never diagonal. The unit emits Wall Sound when you bump into a wall, and you must then back up one square and stop. If you attempt to skip over squares, or move through a wall, it sets off an illegal move buzz. After one warrior's turn ends, the other's tune will sound, or if playing solitaire, the machine will issue your own warrior's tune again.

Continue moving, marking walls wherever you find them. Try to mark as many as possible before the dragon wakes up. This will make it easier to flee the great serpent if a retreat becomes necessary.

The dragon starts the game asleep in the treasure room. If any player gets within three squares of the dragon, it awakes. A special noise warns participants of this event. As soon as the player's turn is over, the dragon moves one square, signified by the Dragon Flying sound.

Once awakened, the dragon chases the nearest warrior. Although the dragon can move only one square at a time, it can travel diagonally and fly over walls. If the creature is chasing one warrior and the other fighter happens to come closer, the fearsome reptile changes direction to go after the nearer target. If either player gets the treasure,

After any attack, the warrior must return to his secret room to recover.

If a warrior finds the treasure before the dragon finds him, a short Treasure Tune will the dragon will immediately start after that warrior, even if the other warrior is closer.

If the dragon lands on the same square as a warrior, or vice versa, it will attack and wound. The warrior tune will blare forth, followed by the Dragon Attacks sound. After the first dragon attack, the maximum move per turn drops from eight squares to six for the unlucky warrior. It decreases from six to four after the second dragon attack, and a third attack wounds the warrior too badly to continue play. The weight of the treasure slows the adventurer to a movement rate of four squares per turn. If he succeeds in returning the treasure to his secret room, avoiding both the dragon and the other warrior's attempt to steal the treasure, a special song salutes the winner.

In the early going, it is good strategy for the two players to cooperate in marking as many walls as possible. Try especially hard to map the area in the immediate vicinity of your secret room. It is in both players' interest to locate the labyrinth walls as early in the game as practical.

If the dragon is awake and chasing your warrior, pass close to your rival. This diverts the dragon into chasing the other guy, by leaving him nearer to the monster. Similarly, if your foe has the treasure, and you're not close enough to intercept him, lay an ambush by camping at the entrance to his secret room. Then engage in combat to steal the treasure. This is done by occupying the same square. The computer decides the winner, based on each warrior's strength factor at the time of the engagement. Remember that the weaker warrior will lose, but also keep in mind that the game restores each warrior's strength at certain intervals. That means you can never be sure how strong your opponent, or your own champion, really is.

The game has charms to entrance labyrinth fans. The 12 sound clues are distinct. Preview keys along the left side of the unit allow you to identify what you just heard in case your memory fails. The playing pieces, two metallic warrior figures, a
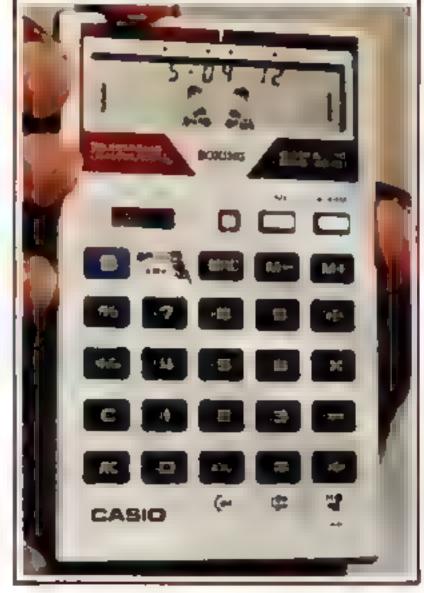
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The playing pieces, two metallic warrior figures, a

treasure trove, and a handsome dragon, add a dash of needed color. The red plastic unit contains a storage tray.

It is disappointing that Mattel decided to produce a simple game, playable by eight year olds and above, from the *Dungeons & Dragons* license. But within the limitations of a maze game for children, this stand-alone is handsome and playable. It should provide hours of pleasure for younger electronic arcaders.

Boxing Game Calculator/Casio

The **Boxing Game Calculator** from Casio is a four-way hit. It contains a continuous read-out digital clock, an alarm, an eight-digit calculator, and the exciting boxing game.

The time display is clear, giving hours, minutes and seconds. The calculator does four basic operations with memory calculations, percentages, and a full floating decimal point. The slim vest pocket unit comes in a leather folder that looks good at any business meeting when you whip it out of your pocket.

We assume the reason you'll be taking it out of your pocket is to play a quick round of the boxing game while no one is looking. This is what makes the *Casio BG-15* stand head and shoulders above the rest.

Set the mode selection switch to "game", and press the start button. After the highest previous winning

number and points are displayed, the first round begins. Each match consists of eight rounds lasting about 30 seconds each. Bouts are won on points or by KO. There are 10 weight classes, from flyweight to heavyweight. As you go on winning, either by points or KOs, each new challenger comes from a heavier class.

Three keys activate the boxer. A punch key delivers straight head punches and body blows, the up/down key changes aim of punches, from head to body blows, and also defends your own puglist from the opponent's blows, the sway key moves a boxer backwards to dodge a shot, and helps get maximum power from a counter-punch.

The digital read-out indicates the round number and reports the condition of the combatants. The left side of the read-out displays your opponent's stamina and the power of the punch just thrown. The right side delivers the same information for your man.

At the end of the bout, the victor is shown by either knockout (10 count or 3 knockdowns in one round) or on points. The winning number and points are then displayed, and the next bout begins. If you have won, your next challenger is from the next highest weight class. The program contains 100 challengers. If you defeat all of them, the game returns to the first one.

The animation is simple line drawing of two boxers' torsos, matrixed so that they can shuffle backward and forward in three positions per fighter, or be depicted flat on the canvas. The corner post of the ring moves to the right or left, depending on whether a boxer is on the attack or defense.

This is a real hit for calculating fans

of the squared circle. It provides a big punch in a featherweight package.

Space Invaders/Entex

Space Invaders in this hand held version will, of course, be familiar to everyone who has loved it in commercial arcades and as a home videogame. Entex's adaptation is extraordinarily faithful and is a highly playable game that will provide many hours of solitaire competition for devotees of **Space Invaders.**

The object here is to attain the highest score by destroying as many aliens and mother ships as possible before they blast your three cannons. Each flight of attackers consists of eight aliens. A pair of shields provide temporary protection for the cannon. The hostile mother ship darts back and forth across the top of the display screen.

A pair of buttons move your cannon to the left and right at the bottom of the display to help line up good shots and avoid the bombs raining from the sky. The fire button releases a rocket powered missile that can destroy the attackers.

Successfully clearing one wall of invaders causes another wall to appear. Bonus cannons are awarded at various scoring milestones throughout the game. Depending on the timing, hitting the command ship scores 10, 20 or 30 points. Atomizing the aliens scores 5 points at long range and 2 points for close range.

Two skill level settings provide challenge for all players. At the amateur level, the attackers stop firing once only two of the ships are left. At the professional level, fire continues until all ships are destroyed, and the velocity of the encounters is quicker.

This is one of the best translations to date from arcade to handheld. *Space Invaders* fans will find few flaws in this charming portable version of their favorite pastime. ⊖

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American Heart
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PASSPORT TO

ADVENTURE

Strike a Blow
Against the Third Reich!

Castle Wolfenstein Muse Soft ware Apple I 48K disk

Wartime often inspires cruelties that would be totally unthinkable during a period of peace. This is, perhaps, the only justification for the whole-sale slaughter that takes place during a typical round of **Castle Wolfenstein.** After all, these are human beings, not robots or aliens, getting ripped aprart by gunfire.

Silas Warner, designer of this action-adventure, has wisely stacked the deck so heavily that it is possible to justify almost anything the player-character does in the name of kill-or-be-killed sur-

vival. As the hero of this World War II mini-drama, the arcader portrays an allied prisoner whom the Nazis have brought to the castle for torture and execution. While waiting in a cell for the SS interrogation squad, another inmate slips the player a fully loaded gun and suggests using it to escape. Before the Nazis finally kill this unseen friend, he tells the players that there is a set of secret war plans hidden somewhere in the multi-story fortress that would greatly aid the allied war effort.

To gain freedom, the prisoner must creep from room to room, using the

staircases to climb from level to level. Armed soldiers guard each room, though they seldom stray from their beats without severe provocation or direct orders The roving SS storm-troopers show much more initiative and determination when it comes to tracking down the escapee.

Most of the rooms also contain supply chests. These may hold such useful items as German uniforms, bulletproof vests, hand grenades or bullets—or something relatively worthless like schnapps. And, of course, the war plans are in one of the chests.

The program offers the option of controlling the on-screen character with the keyboard, paddles or joystick All work well, but the last-named is by far the most preferable. Response time is excellent, and it shouldn't take much practice to get the hang of navigation around the castle. Watch out for the wall, however, since bumping into one causes the screen to break up temporarily and stuns the escaping prisoner for a few crucial seconds during which the Nazis can close in for the kill. Warner has somewhat overdone the commotion caused by such collisions, but this is only a minor annoyance.

Fire and movement with the joystick is easy. Holding down button #1 permits aiming the player's gun with the joystick. When the button is not pressed, the stick moves the prisoner in the desired direction. The gun is fired by hitting button #0, and you can throw a grenade by pressing the "T" key.

To search a Nazi, the on-screen character need only point at the one to be examined. Chests work the same way, but there is a time delay—different for each chest—before the contents can be studied. A read-out at the bottom of the screen counts down the time needed to jimmy a chest. Some take as long as 250 seconds. Even though time passes about three times as quickly as on a real clock, this can strain anyone's patience. Shooting at the lock often cuts the wait substantially, but it does use up ammo If the player turns up anything worth carrying, striking the space bar picks up the

desired item.

The computer designs each castle randomly. The player can, if he does not get free, use the same schematic over and over, or have the program whip up a new one every time. Successful escapes generally gain the former prisoner a promotion—and the right to try it all over again with a more difficult castle. It is possible to order a new castle design without losing any earned rank.

Caution is the watchword for any player hoping to make a successful flight to freedom. Ducking into a room, taking a quick look around and then beating a hasty retreat can sometimes prevent unpleasant surprises.

Once the prisoner has located the plans, switch tactics from direct confrontation with the enemy to simple avoidance. That is, if you can zip through a room before guards can mobilize effective opposition, do so at every opportunity. There's no need to methodically tour the castle, wiping out the Nazis in each and every room. The more time spent wandering around, the greater chance that hard-to-kill SS men will begin dogging your footsteps.

Castle Wolfenstein does not have quite the stress on sheer role-playing found in some other action-adventures, but its overall liveliness and playability more than makes up for any lack in that department.

Cyborg Sentient Software/
Apple II 48K disk

You're standing on a dirt round that cuts through a lush green forest. The path seems to stretch to the horizon in both directions, and the foliage blocks out everything else. Suddenly, a strange voice starts talking in in your skull. It provides the interesting bit of information that you are, in reality, a cyborg—a being who is part man and part machine.

That, in a

nutshell, is the starting point for **Cyborg**, one of the most relentlessly fascinating augmented text adventures ever to boot on an Apple. Science fiction themes continue to be rare in this genre, and this could well be the best ever produced. It even out-classes its immediate predecessor from Sentient, **Oo-Topos**, which set the standard for hardcore SF interactive games.

The best thing about Cyborg is that while it is very difficult, it is also very fair. The same cannot be said for all too many other adventures. Common sense will take a player very far in this game, because it is remarkably free of the sort of tricks and traps that require the gamer to work on unraveling the mind of the designer instead of dealing with the actual situation directly.

On the other hand, few players are going to breeze through this electronic novel in a couple of hours. There's no shortage of brain-teasers here, but all are solvable by methods that won't outrage anyone's logical sensibilities.

The method for entering commands will be familiar to experienced questers, at least up to a point. The player types in two-word orders in a standard "verb-noun" format. The program processes the command and then returns data on the consequences of the action just taken. An illogical or incomprehensible instruction is immediately flagged as such by the computer, and the player is free to try something else.

The vocabulary may exasperate some adventurers. Although Cyborg has an unusually extensive vocabulary, the correlation between the words which are understandable as commands and the

CASTLE WOLFENSTIEN

CASTLE WOLFENSTIEN

words used by the computer to print information on the screen isn't as good as one might wish. Since the program can use many more words than it can actually comprehend, there are bound to be gaps, but these sometimes occur in exactly the wrong places. For instance the program doesn't understand the word "door" (as in "open the door").

The major departure from all previous adventure games is the presence of the cyborg mind. At any point in the action, the player can call on his mechanical half for assistance. This can take the form of an opinion about an object, a comment about the adventurer's current location or general guidelines concerning which commands will be effective. Sad to say the cyborg isn't always brimming with good advice, especially in early stages of the game when the mechanical brain is suffering from a power shortage. Still, it provides a little more aid than the typical adventure disk furnishes in response to pleas for help.

Cyborg includes a very powerful "save game" option that should prove extremely useful to those who must spread play sessions over a period of many days. Typing "save" and answering "yes" to a verification query will put the game-in progress onto the Cyborg game disk, and then lets the play resume as if nothing had happened.

The great thing about this approach is that it minimizes the effect of one bad move. There's nothing worse than having to go all the way back to square one after a long stretch of flawless gamesmanship as a result of a single stupid mistake. With Cyborg, the player

simply uses the "save" feature just prior to attempting something risky. If things go amiss and the cyborg is damaged beyond repair, starting the game over will cause it to resume just before the calamity took place.

Cyborg is a particularly difficult game to review, because so much of its early phase hinges on the protagonist's lack of solid information about the world

around him. To describe any of the many marvelous touches would be to destroy their effectiveness. For instance, there is a graphics sequence inserted into this otherwise text-only quest. Nothing mind blasting, you understand, but a delightful change of pace from the ongoing routine of play.

Score a second success for Michael Berlyn, the science fiction writer who created the world of Oo Topos. The concept of pairing a creative writer with a

programmer has tremendous potential, if the first two tries are any indication.

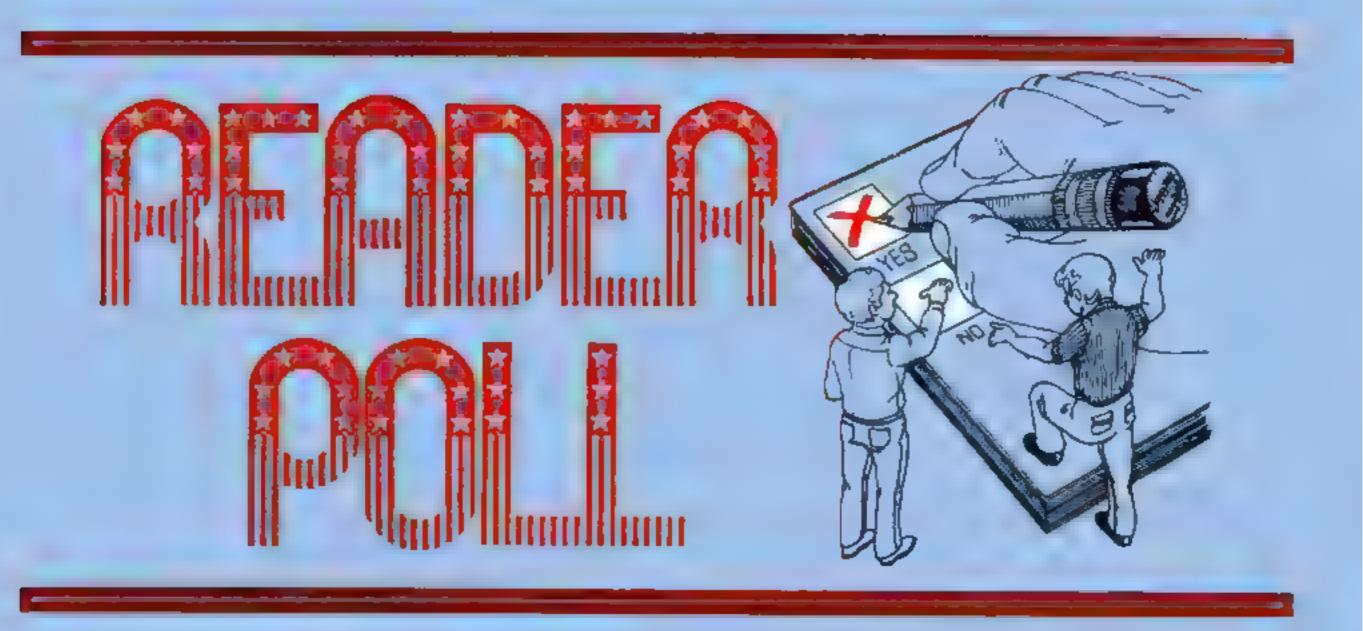If you buy one Apple text adventure this year, make it Cyborg.

Analog Adventure/Analog Software/ Atari 800/32K disk

Wily Crowther and Don Wood of M.I.T. get the credit for producing the very first heroic fantasy game. Their invention called **Adventure**, set the pattern for most of the quest games.

Now a new software supplier has brought out an extremely well-produced version of the venerable original to challenge the wits of Atari owners. The treasure hunt through Colossal Cave is entertaining in itself and also provides a dollop of instant computer history for those who are curious about the way the whole fantasy adventure phenomenon began.

While the translators, Lee Pappas and Charles Behand, have obviously not produced a work of striking originality, they get high marks for turning out an extraordinarily clean and user-friendly version of this classic.

Analog Adventure is programmed in Basic rather than in machine language, as are most of the newer titles reaching the stores today. This makes for a creakingly slow response time. More than one player will become impatient while waiting for the computer to react to his instructions. Partially offsetting this drawback is the fact that Analog Adventure allows the gamer to put more than one move on a line. This comes in very handy in some situations such as when the on-screen hero desires to pick up several items at the same time. ⊖

READER POLL

Interaction between the readers and editors of **Electronic Games** helps make this a better magazine. The more we here at **EG** know about who you are and what you want to read, the better we can satisfy your needs and desires. That's why we run a Reader Poll in every single issue of this magazine. Rest assured that, even though we protect the anonymity of every respondent to our survey, the editor personally reads each and every ballot received. And of course, this is also your ballot for casting your vote for the most popular videogames, computer game programs and coin-op machines.
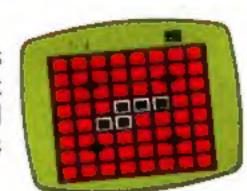
Please return this poll sheet—or a photocopy if you prefer to keep your **Electronic Games** in perfect condition—to Electronic Games 235 Park Avenue South, New York, NY 10003.

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$20,000-$39,0000 _____ Over $40,000 _____

Please check off the electronic entertainment devices you now own, and which ones you intend to buy within the next 12 months

	Own	Plan to Buy
Atari VCS	_____	_____
Intellivision	_____	_____
Odyssey^2	_____	_____
Astro Arcade (Bally)	_____	_____
Other videogame	_____	_____
Chess Computer	_____	_____
Atari 400/800	_____	_____
Apple II	_____	_____
TRS 80 Color	_____	_____
VIC 20	_____	_____
Other microcomputer	_____	_____

Please rate the following features from 1 (awful) to 10 (great)
Switch On! _____ Q&A _____ Test Lab _____ E G Hotline _____
Computer Playland _____ Programmable Parade _____
Insert Coin Here _____ Strategy Session _____
Arcade America _____ Passport to Adventure _____
Inside Gaming _____ Stand-Alone Scene _____
Players Guide _____

How many hours per week do you spend playing various types of electronic games:
Less than 2 hours _____ 2-5 hours _____ 6-10 hours _____
More than 10 hours _____

How much do you spend per week on electronic games
Under $2 _____ $2-5 _____ $6-10 _____ Over $10 _____

Please rate the following subjects from 1 (not very interesting to me) to 10 (of great interest to me)
Fantasy & Science Fiction _____ Sports _____ Wargames _____
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Computer games _____

My favorite videogame cartridges are
1 _____
2 _____
3. _____

My favorite microcomputer game programs:
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2 _____
3. _____

My favorite coin-op games are
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2. _____
3 _____

Coming NEXT in electronic GAMES
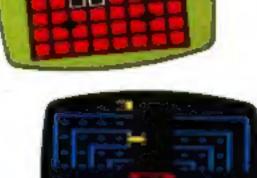
Grand Slam!

In the spring, an arcader's fancy turns to thoughts of—baseball. The National Pastime is one of the most popular topics for electronic sports simulations. **EG** will help you separate the pennant-winning baseball games from the cellar dwellers.

The Players Guide to Electronic Adventures

Fabulous treasures and, perhaps, a beauty in distress, await, but take care... one false move and you could end up some mighty monster's midnight snack! Interactive strategy games with a dash of role-playing are the hottest thing to hit videogaming since **Pac-Man**. Our magazine within a magazine shows how you can explore outer space, fight evil wizards and earn legendary fame, all without leaving your game console.

Ten Tips for Pac-Maniacs

Ken Uston, best-selling author of "Mastering Pac-Man", guarantees you'll improve your score by following these special hints.

Time for Games

Can't bear to be separated from your favorite games? Now you can strap a mini-arcade to your wrist and play anywhere! High-quality game watches are here—and **Electronic Games** has the lowdown.
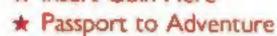
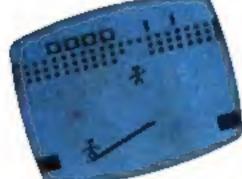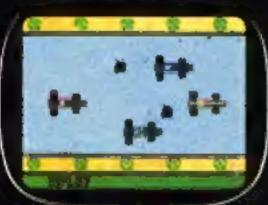There'll be plenty of other articles and features of interest to arcade addicts. plus these regular columns:

★ Switch On!   ★ Readers Replay
★ Q&A   ★ EG Hotline
★ Inside Gaming   ★ Strategy Session
★ Arcade America   ★ Insert Coin Here
★ Computer Playland   ★ Passport to Adventure
★ Programmable Parade   ★ New Products
★ Stand-Alone Scene   ★ Test Lab

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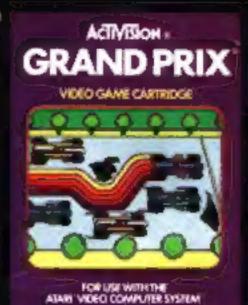
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